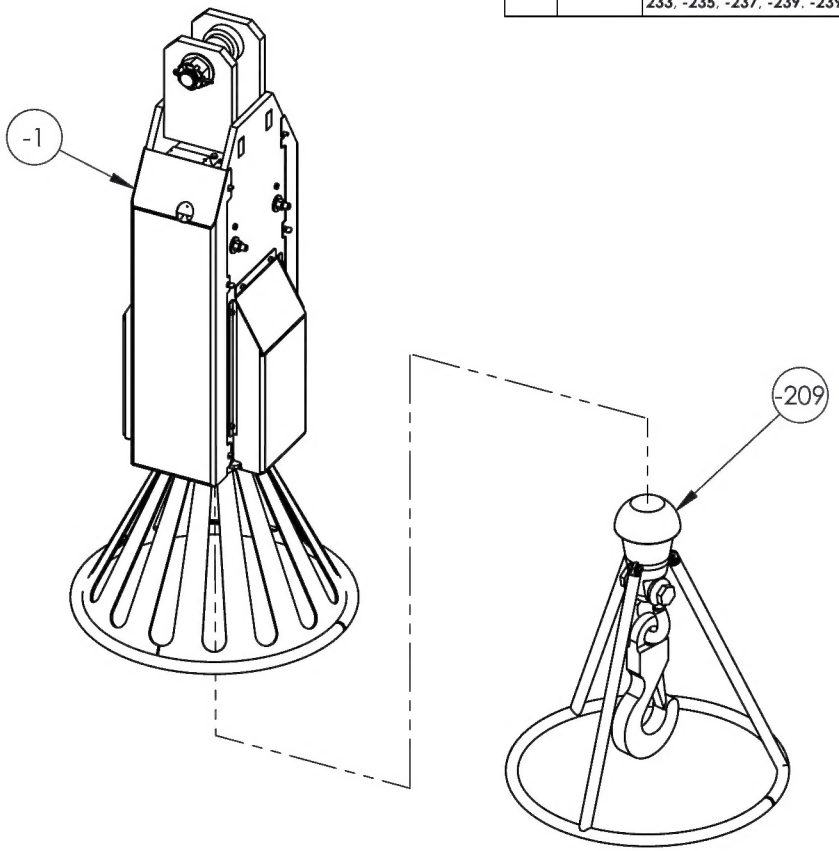
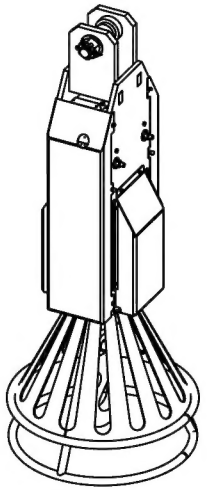
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	**-5**, **-9** REMOVED 2 HOLES USED WITH -59. **-7** CHG MATERIAL 4140/4142. **-15** INCREASED WIDTH BY .06 TO 6.40. **-55**, **-57** MOVED HOLES FROM 16.91 TO 17.91. **-59** REMOVED 2 HOLES, INCREASED LENGTH TO 17.44 FROM 15.44.	1/6/2015	PW	JG
2	15-0149	UPDATED TO NEW DRAFTING STANDARDS. **-3** ADDED NOTE 4. **-5** DELETED HOLES D1, D2, D3, D4. ADDED HOLES C7, C8. **-9** DELETED HOLES E1, E2, E3, E4. ADDED HOLES D7, D8. **-29** CH'D BORE DIA WAS LIMITS Ø.7518-7513 IS LIMITS Ø.8768-.8763. REMOVED COUNTERSINKS. **-33** CH'D ROD DIA WAS LIMITS Ø.6240-.6230 IS LIMITS Ø.7495-.7483. **-49** CH'D TITLEBLOCK TOLERANCES. **-55** ADDED CHAMFER 2X .30 X 45°. DELETED HOLES 4X Ø.194. ADDED HOLES 2X Ø.28. ADDED TAB. **-57** ADDED CHAMFER 2X .30 X 45°. DELETED HOLES 4X Ø.194. ADDED HOLES 2X Ø.28. ADDED TAB. **-59** HOLES SLOTTED. FLANGE INTERFACE IMPROVED. **-59A** CH'D DIM WAS 2X 7.643 IS 7.643. ADDED DIM 7.513. **-61** CH'D HOLE LOCATION WAS 2.00 IS 1.85, WAS 2.60 IS 2.30. ADDED KNOB -239. **-65** CH'D DIM WAS Ø1.10↧.03 IS 2X Ø1.10↧.025. **-79** ADDED 4X -231, 4X -233, 4X -235. **-79E** UPDATED WIRE TABLE AS BUILT. CH'D T3-T4 QD TO T3 BUTT SPLICE. ADDED T11 BUTT SPLICE. ADDED T12-T13 QD. **-81** CH'D QTY WAS 1 IS 2. **-93A** CH'D HOLE LOCATIONS, A1 WAS 1.20 IS 1.09, A2 WAS 4.20 IS 4.31, A3 WAS 2.10 IS 1.99, A4 WAS 5.10 IS 5.21, C3 WAS 1.56 IS 1.59, C4 WAS 6.00 IS 6.08. CH'D HOLE DIA WAS Ø.13 IS Ø.15. **-93B** CH'D HOLE LOCATIONS A1 WAS 1.56 IS 1.59, A2 WAS 4.23 IS 4.15. ADDED MISSING HOLE THREADS 4X 4-40. CH'D HOLE DIM WAS .75 IS .64. CH'D TOL WAS .87 IS .870. **-121** CH'D B/O INFO WAS E-SWITCH IS CIT SWITCH. **-153** SIZE INCREASED TO 3/4. **-171** WAS FLATHEAD IS SHCS. **-193**, **-195**, **-199**, **-201** DELETED. **-219** CH'D TOL WAS .51 IS .510. **-221** CH'D TOL WAS (.50) IS .500. ADDED **-229**, **-231**, **-233**, **-235**, **-237**, **-239**. **-239** ADDED DRAWING SHHET.	6/22/2015	PMW	JAG





NOTES:
TBD: ANTENNA POSITION.
OPERATOR ON GROUND OR IN HELICOPTER?
MAYBE ADD MULTIPLE ANTENNAS.
TBD: THUMB SCREWS FOR THE COVERS.
IS THERE A BETTER METHOD?

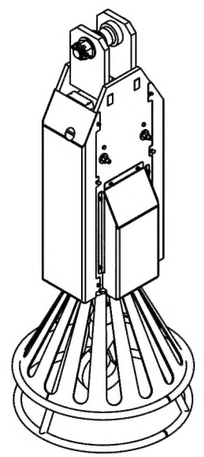
DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3		REV 2
MAT'L	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:16	DATE 12/3/2014	SHEET 1 OF 57

-209	-211	-93	-79	-67	-63	-61	-21	-3	-1	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
									X		-1	1	VCT HOOK ASSEMBLY			3
								X	1		-3		FRAME WELDMENT			4
								1			-5		FRAME	HR P&O		
								1			-7		PLATFORM	4140/4142		
								1			-9		OPEN HOLE FRAME	HR P&O		
								1			-11		FRAME FLANGE	HR P&O		
								4			-13		BOSS, HOOK	A36		
								2			-15		LIFTING PLATE	HR P&O		
								2			-17		LIFTING BOSS	A36		
								8		B/O	-19		DOWEL PIN	S.S.	Ø1/4 X 1 (MCMASTER-CARR #97395A491)	
							X		1		-21		CONE WELDMENT			
							1				-23		CONE RING	C.D.S. 1018		
							1				-25		CONE FLANGE	A36		
							1				-27		CONE	HR PLATE		
											-27A		CONE FLAT PATTERN			
									1		-29		MAIN RING	4140/4142		
									1		-31		CROSS	4140/4142		
									1		-33		PUSH ROD	4140/4142 Q&T		
									1		-35		PUSH ROD LINK	4140/4142		
									2		-37		PIN, PUSH ROD LINK	4140/4142 Q&T		
									6		-39		LINK	4140/4142		
									12		-41		PIN, LINK	4140/4142 Q&T		
									6		-43		ARM	4140/4142		
									6		-45		PIN, ARM	4140/4142 Q&T		
									6		-47		ANCHOR GUARD	6061		
									2		-49		BRACKET, BOX	1018		
									1		-51		LIFTING BUSHING	4140/4142 Q&T		
									1		-53		LIFTING BOLT	STEEL	1-1/2 - 6 X 8, GRADE 8 (MCMASTER-CARR# 91268A963) MODIFIED	
									1		-55		COVER	1018		
											-55A		COVER FLAT PATTERN			
									1		-57		COVER	1018		
											-57A		COVER FLAT PATTERN			
									2		-59		SIDE COVER	1018		
											-59A		SIDE COVER FLAT PATTERN			
							X		1		-61		C45 VCT-3 HOOK ASSEMBLY			
							1				C45		C-45 HOOK			
						X	1				-63		LOAD BEAM ASSY			
						1					-65		LOAD BEAM	4140/4142		
						1					C45-4-2		TRUNNION	4140		
					X		1				-67		CABLE HARNESS			
					1					B/O	-69		PLUG		MS3106R14S6P (ALLIED# 70010122)	
					2					B/O	-71		KNIFE CONNECTOR		22-16 AWG (ALLIED# 70082802)	
					1					B/O	-73		PROXIMITY SWITCH		INDUCTIVE M5 AUTOMATION-DIRECT# PD1-AP-3A	
					1					B/O	-75		HEAT SHRINK TUBE	RUBBER	Ø1/4 BLACK (MCMASTER-CARR# 7856K17)	
			1		1					B/O	-77		WIRE 16AWG		6 FT WIRE 16AWG	
			X						1		-79		ELECTRICAL ASSEMBLY			
											-79E		WIRING DIAGRAM			
			2								-81		BLOCK, BATTERY	6061		
			1								-83		ELECTRICAL PORT PLATE	6061		
			1								-85		ELECTRICAL PORT GASKET	NEOPRENE RUBBER	1/16 x 3-1/2 x 5 W/ADHESIVE BACK (MCMASTER-CARR # 8461K42)	
			1								-87		ANTENNA BLOCK	6061		
			1								-89		GASKET, ANTENNA BLOCK	BUNA-N RUBBER	1/16 X 1-3/8 X 2-1/8 (GASKET SPECIALTIES)	
			1								-91		PLATE LIGHT ELECTRONICS	6061		
		X	1								-93		ENCLOSURE	ALUMINUM	AN-1323 BUD (ALLIED #70147983)	
		1									-93A		LID, ENCLOSURE	ALUMINUM	MODIFIED	
		1									-93B		BOX, ENLOSURE	ALUMINUM	MODIFIED	
			4							B/O	-95		HEX HEAD CAP SCREW	S.S.	1/4-20 X 3/4 (MCMASTER-CARR# 92240A540)	
			3							B/O	-97		SOCKET HEAD CAP SCREW	S.S.	10-24 X 1 (MCMASTER-CARR# 92185A247)	
			4							B/O	-99		THUMB SCREW	S.S.	#8-32 X 3/8 (MCMASTER-CARR# 91744A192)	
			2							B/O	-101		HEX HEAD CAP SCREW	S.S.	1/4-20 X 4-1/4 (MCMASTER-CARR# 92198A559)	
			16							B/O	-103		BUTTON HEAD SCREW	S.S.	4-40 X 7/16 (MCMASTER-CARR# 92949A111)	
			4							B/O	-105		HELICOIL	S.S.	8-32 X .164 (MCMASTER-CARR# 91732A359)	
	3		2						16	B/O	-107		NYLON INSERT HEX NUT	S.S.	1/4-20 (MCMASTER-CARR #91831A029)	
									16	B/O	-109		WASHER	S.S.	1/4 (MCMASTER-CARR #96659A106)	
			1							B/O	-111		GASKET, RECEPTACLE	RUBBER	10-040450-014 (ALLIED# 70010390)	
			8							B/O	-113		SEALING WASHER		Ø1/4 (MCMASTER-CARR# 93783A029)	
			12							B/O	-115		SPACER	NYLON	#4 X 1/4 (MCMASTER-CARR# 94639A201)	
			1							B/O	-117		ELECTRICAL RECEPTACLE		MS3102R14S6S (ALLIED# 70143519)	
			1							B/O	-119		LIGHT SWITCH		APEM ISR3SAD200 (ALLIED# 70066003)	
			1							B/O	-121		SWITCH		CIT# CH1LFS024S	
			2							B/O	-123		STROBE LIGHT		12V LIGHT, CLEAR (SPEEDTECHLIGHTS# STL Z-3, CLEAR)	
			1							B/O	-125		VOLTAGE REGULATOR		RECOM R-78B12-1.0 (ALLIED# 70051995)	
			1							B/O	-127		RELAY		OMRON 12V G5LA (ALLIED# 70175858)	
			1							B/O	-129		ANTENNA		433 MHZ 1/4 WAV WHIP RPSMA (DIGI-KEY #ANT-433-CW-HW-ND)	
			1							B/O	-131		BATTERY		24V ULTRALIFE #UBBL09/B	
			1							B/O	-133		BATTERY CONNECTOR		24V ULTRALIFE #CA0006	
			1							B/O	-135		CIRCUIT BOARD, RECEIVER		BERRY INDUSTRIES #BIDA001RE	
			1							B/O	-137		CIRCUIT BOARD, POWER		BERRY INDUSTRIES #BIDA001PW	

-209	-211	-93	-79	-67	-63	-61	-21	-3	-1	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			2							B/O	-138		BUTT SPLICE		16-14 AWG HEAT SHRINK (MCMASTER-CARR# 7617K13)	
			4							B/O	-139		CONNECTOR		QD TERMINAL MALE (MCMASTER-CARR# 7243K22)	
			6							B/O	-141		CONNECTOR		QD TERMINAL FEMALE (MCMASTER-CARR# 7243K21)	
			1							B/O	-143		WIRE		6FT WIRE 22AWG	
									12	B/O	-145		THRUST BEARING	BRONZE	Ø1/2 I.D. X Ø3/4 O.D. X 1/16 (SYMMCO #ST-1624-2)	
									1	B/O	-147		WASHER	STEEL	Ø5/8, GRADE 8 (MCMASTER-CARR# 98023A035)	
									2	B/O	-149		HEX NUT	STEEL	5/8-18, GRADE 8 THIN (MCMASTER-CARR# 93839A835)	
									1	B/O	-151		DIE SPRING	STEEL	2 LONG X 1.25 HOLE X 5/8 ROD (MCMASTER-CARR# 9573K67)	
									1	B/O	-153		BUSHING	SINTERED BRONZE	Ø3/4 I.D. X Ø7/8 O.D. X 1 (SYMMCO #SF-2428-16)	
									2	B/O	-155		WASHER	STEEL	1-1/2 (MCMASTER-CARR# 90126A042)	
									1	B/O	-157		SLOTTED NUT	STEEL	1-1/2 - 6 (MCMASTER-CARR# 95030A370)	
									12	B/O	-159		BOLT	S.S.	1/4-20 X 3-1/4 (MCMASTER-CARR #92198A555)	
									12	B/O	-161		SLEEVE BEARING	SINTERED BRONZE	Ø3/8 X 1/2 OD X 1/2 (SYMMCO SS-1216-8)	
									2	B/O	-163		SLEEVE BEARING	SINTERED BRONZE	Ø5/8 X 3/4 OD X 3/4 (SYMMCO SS-2024-12)	
									6	B/O	-165		SLEEVE BEARING	SINTERED BRONZE	Ø1/2 X 5/8 OD X 1/2 (SYMMCO SS-1620-8)	
									24	B/O	-167		THRUST BEARING	BRONZE	Ø3/8 I.D. X 5/8 O.D. X 1/16 (SYMMCO #ST-1220-2)	
									4	B/O	-169		THRUST BEARING	BRONZE	Ø21/32 I.D. X Ø1-1/2 O.D. X 1/16 (SYMMCO #ST-2148-2)	
									4	B/O	-171		SOCKET HEAD CAP SCREW	S.S.	1/4-20 X 1-1/2 LOW PROFILE (MCMASTER-CARR# 93615A425)	
									4	B/O	-173		WASHER	STEEL	Ø1/2 (MCMASTER-CARR# 90108A033)	
									2	B/O	-175		HEX HEAD CAP SCREW	STEEL	1/2-13 X 9, GRADE 8 (MCMASTER-CARR# 91257A742)	
									2	B/O	-177		NYLON INSERT HEX NUT	STEEL	1/2-13, GRADE 8 (MCMASTER-CARR #97135A250)	
									4	B/O	-179		PAN HEAD SCREW	S.S.	10-24 X 3/4 (MCMASTER-CARR #91772A245)	
									4	B/O	-181		NYLON INSERT HEX NUT	S.S.	10-24 (MCMASTER-CARR #91831A011)	
									4	B/O	-183		WASHER	S.S.	#10 (MCMASTER-CARR #96659A104)	
									4	B/O	-185		HEX HEAD CAP SCREW	S.S.	1/4-20 X 1-1/4 (MCMASTER-CARR #92198A544)	
									1	B/O	-187		COTTER PIN	STEEL	Ø1/4 X 3 (MCMASTER-CARR #98338A554)	
									2	B/O	-189		COTTER PIN	STEEL	Ø1/8 X 1 (MCMASTER-CARR #98338A475)	
									18	B/O	-191		COTTER PIN	STEEL	Ø3/32 X 3/4 (MCMASTER-CARR #98338A441)	
									12	B/O	-197		SOCKET HEAD CAP SCREW	S.S.	1/4-20 X 1/2 (MCMASTER-CARR #92185A537)	
									12	B/O	-203		WASHER	S.S.	Ø3/8 (MCMASTER-CARR #91950A031)	
									2	B/O	-205		WASHER	S.S.	Ø5/8 (MCMASTER-CARR #91950A035)	
									6	B/O	-207		WASHER	S.S.	Ø1/2 (MCMASTER-CARR #98017A210)	
	X										-209	1	PUCK ASSEMBLY			
X	1										-211		PUCK WELDMENT			
1											-213		PUCK RING	C.D.S. 1018		
3											-215		PUCK LEG	C.D.S. 1018		
3											-217		PUCK LEG END	1018		
	1										-219		PUCK ANCHOR	4140/4142 Q&T		
	3										-221		PUCK BRACKET	4140/4142		
	1									B/O	-223		SHACKLE		Ø1, 25,000 LB (MCMASTER-CARR #8966T55)	
	1									B/O	-225		SLING HOOK		28,300 LB (MCMASTER-CARR #3804T16)	
	3									B/O	-227		SOCKET HEAD CAP SCREW	S.S.	1/4-20 X 1-1/8 (MCMASTER-CARR# 92196A543)	
									1	B/O	-229		BATTERY CHARGER		19-30V ULTRALIFE# CH0014	
			4							B/O	-231		SOCKET HEAD CAP SCREW	S.S.	#6-32 X 3/4 (MCMASTER-CARR# 92196A151)	
			4							B/O	-233		WASHER	S.S.	#6 (MCMASTER-CARR# 92141A008)	
			4							B/O	-235		NYLON INSERT HEX NUT	S.S.	#6-32 (MCMASTER-CARR# 91831A007)	
									4	B/O	-237		THUMB SCREW	S.S.	1/4-20 X 1/2 (MCMASTER-CARR# 91744A537)	
								1			-239		MANUAL RELEASE KNOB	6061		



DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.: VCT-3 | REV: 2

MAT'L:

DRAWN BY: GILBERT

APPROVED: J. Gilbert

HEAT TREAT:

FINISH:

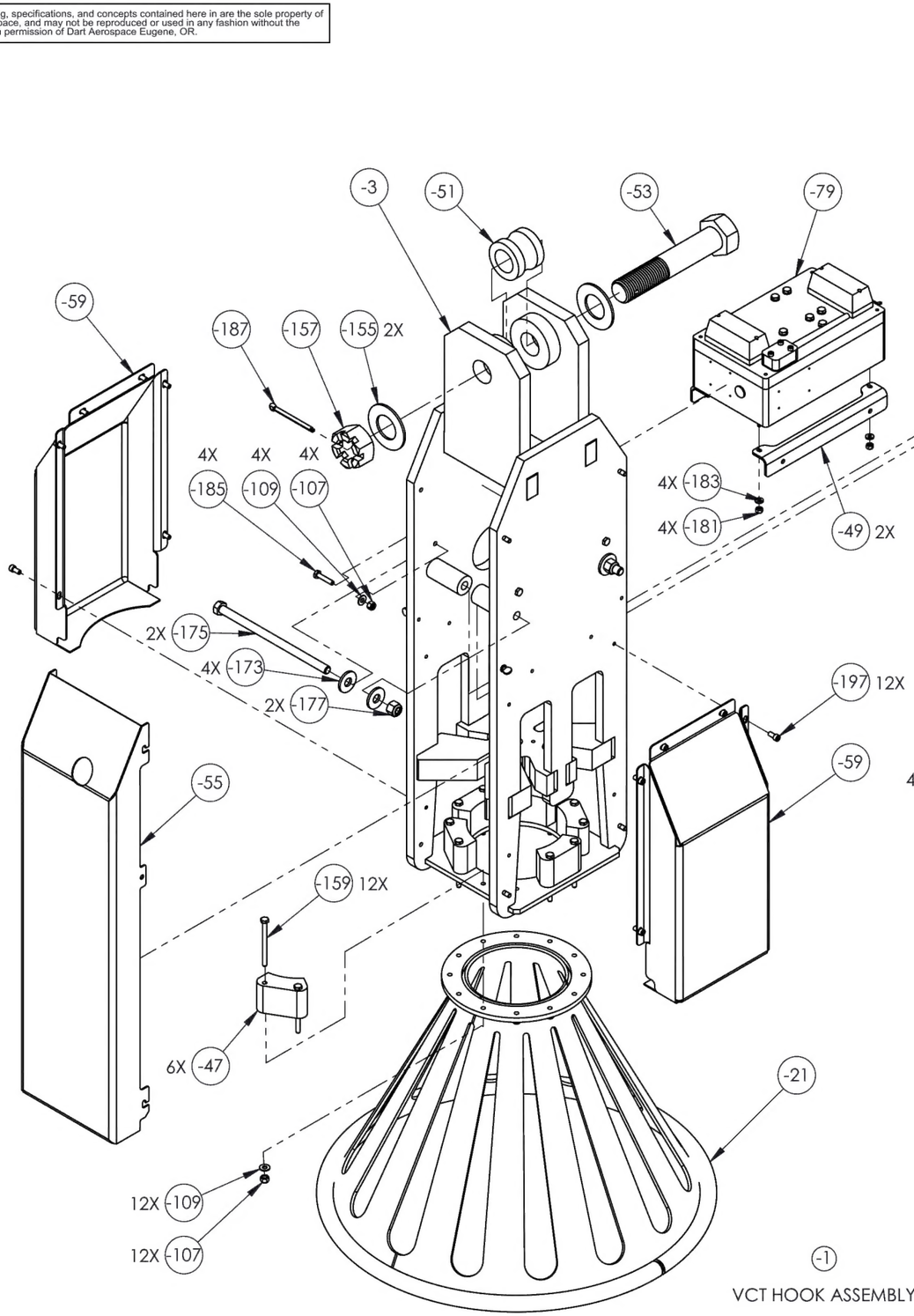
SPEC:

USED ON MODEL:

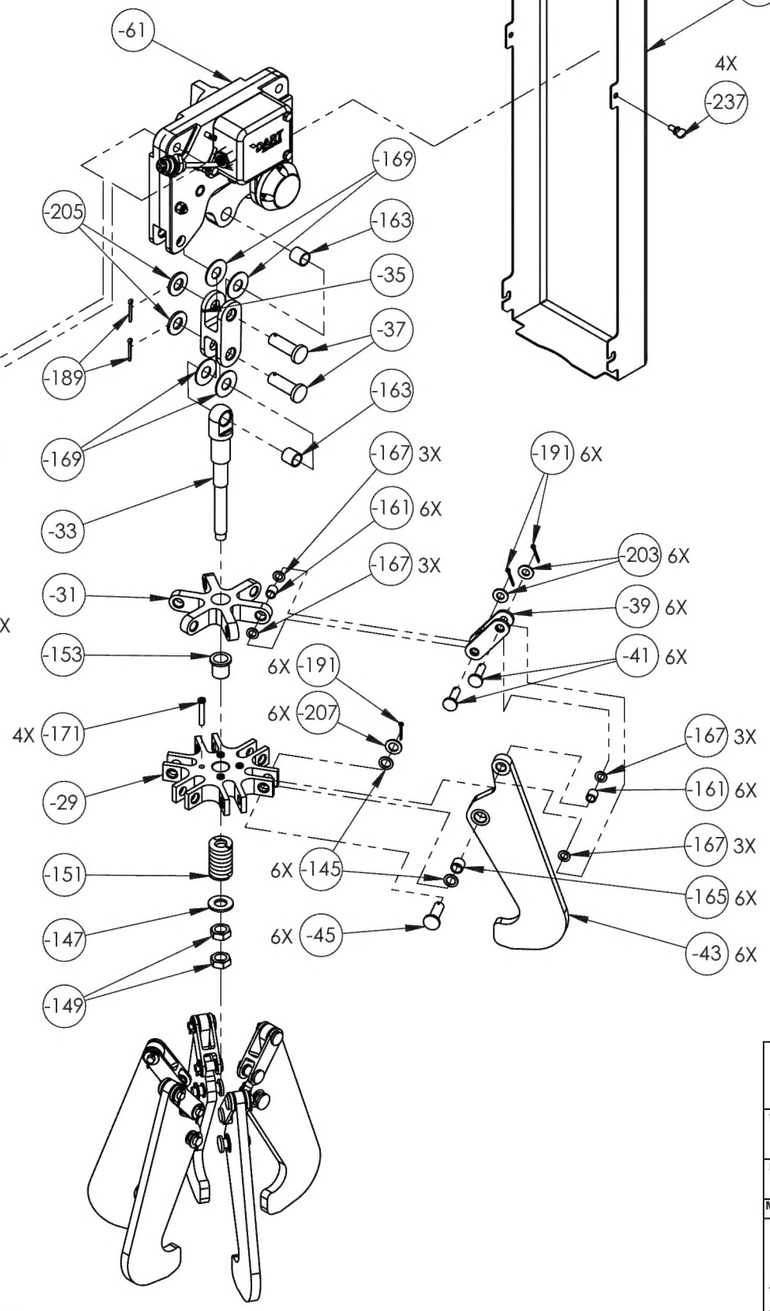
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

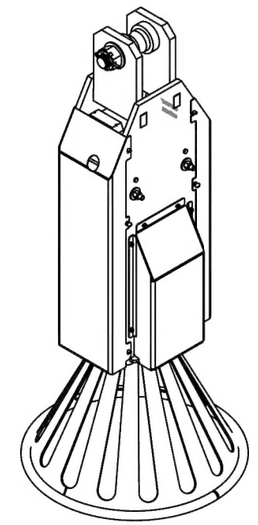
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:20 | DATE 12/3/2014 | SHEET 2 OF 57



VCT HOOK ASSEMBLY

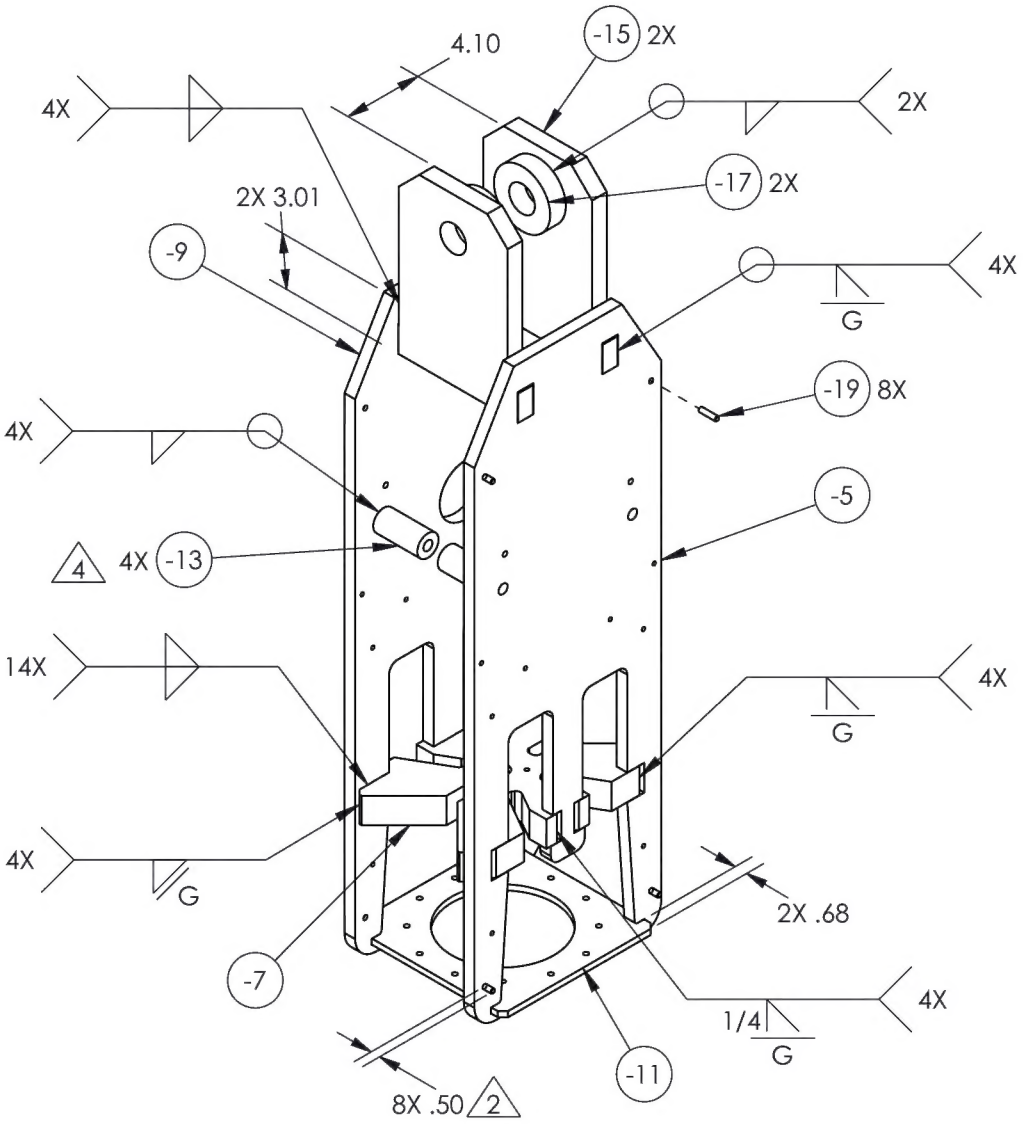




TITLE	VERTICAL CAPTURE TRANSPORT
DWG NO.	VCT-3-1
REV	2
MAT'L	
DRAWN BY:	GILBERT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1	APPROVED J Gilbert
	HEAT TREAT
	FINISH
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL
SCALE 1:8	DATE 12/3/2014
	SHEET 3 OF 57

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-3** ADDED NOTE 4.	6/22/2015	PMW	JAG



-3

FRAME WELDMENT

NOTES:
1. MINIMUM FILLET WELD 1/4".
2. MASK PINS BEFORE POWDER COAT.
3. MASK HOLES BEFORE POWDER COAT.
4. ALIGN BOSSES -13 WITH HOOK SIDE PLATE -61.

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-3 | REV 2

MAT'L

DRAWN BY: DUERFELDT

APPROVED: J Gilbert

HEAT TREAT

FINISH: POWDER COAT

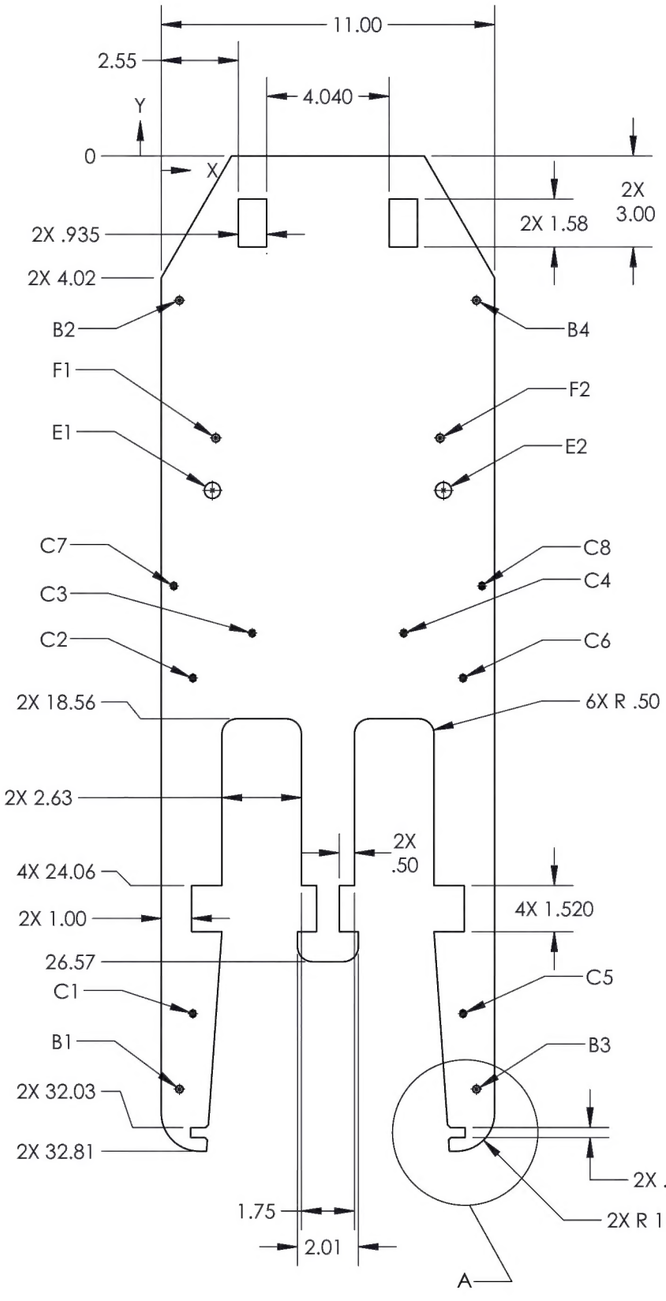
SPEC: GLOSS WHITE

USED ON MODEL

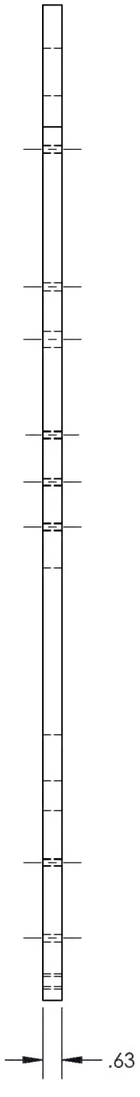
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005
.XX ± .01
.X ± .1
FRACTIONS ± 1/8
ANGLES ±.5°
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:8 | DATE 12/3/2014 | SHEET 4 OF 57

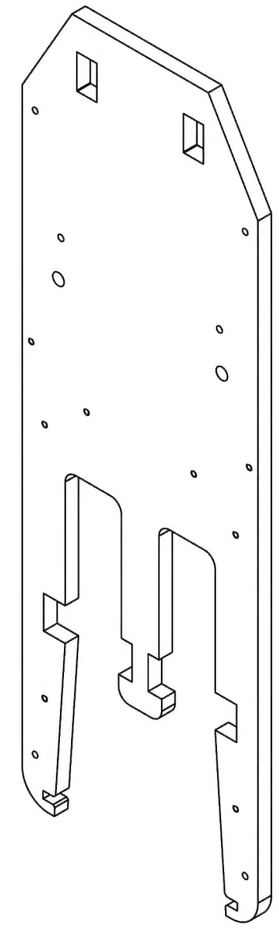
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	REMOVED 2 HOLES USED WITH -59	1/6/2015	PW	JG
2	15-0149	**-5** DELETED HOLES D1, D2, D3, D4. ADDED HOLES C7, C8.	6/24/2015	PMW	JAG



-5
FRAME



DETAIL A
SCALE 1 : 4



TAG	X LOC	Y LOC	SIZE
B1	.60	-30.77	∅ .2496 / .2490 THRU
B2	.60	-4.76	
B3	10.40	-30.77	
B4	10.40	-4.76	
C1	1.04	-28.27	1/4-20 UNC - 2B THRU ALL
C2	1.04	-17.21	
C3	3.00	-15.73	
C4	8.00	-15.73	
C5	9.96	-28.27	
C6	9.96	-17.21	
C7	.42	-14.18	
C8	10.59	-14.18	
E1	1.69	-11.03	∅ .53 THRU ALL
E2	9.31	-11.03	
F1	1.80	-9.30	∅ .27 THRU ALL
F2	9.20	-9.30	

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.: VCT-3-5 | REV: 2

MAT'L: HR P&O | DRAWN BY: CLOUGH

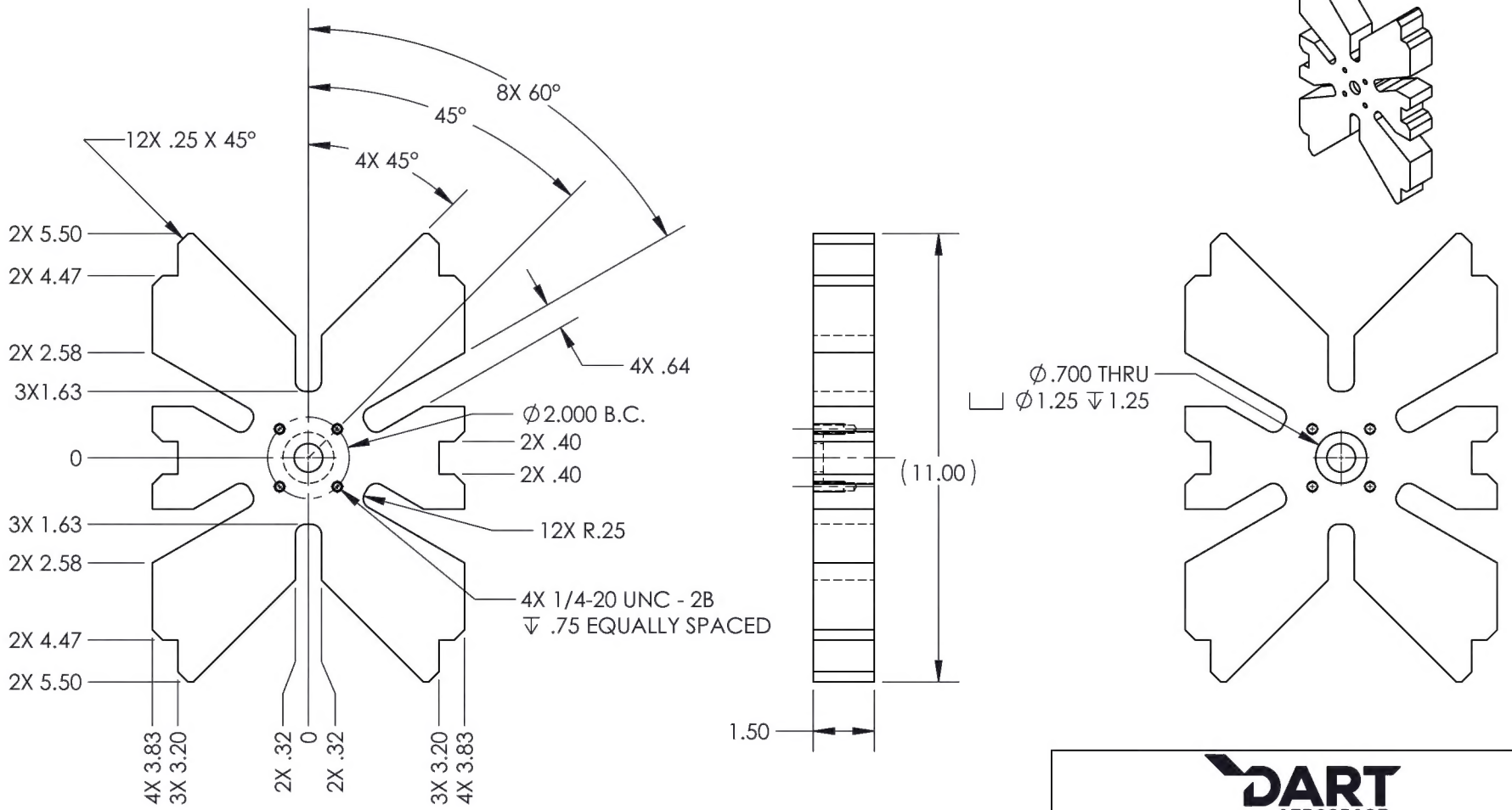
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

APPROVED: J Gilbert
HEAT TREAT:
FINISH: SEE -3 WELDMENT
SPEC:
USED ON MODEL

SCALE: 1:5 | DATE: 10/25/2013 | SHEET 5 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	CHG MATERIAL TO 4140/4142	1/6/2015	PW	JG



-7

PLATFORM

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-7 REV 2

MAT'L 4140/4142

DRAWN BY: CLOUGH

APPROVED: J Gilbert

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

HEAT TREAT: RC 19-23

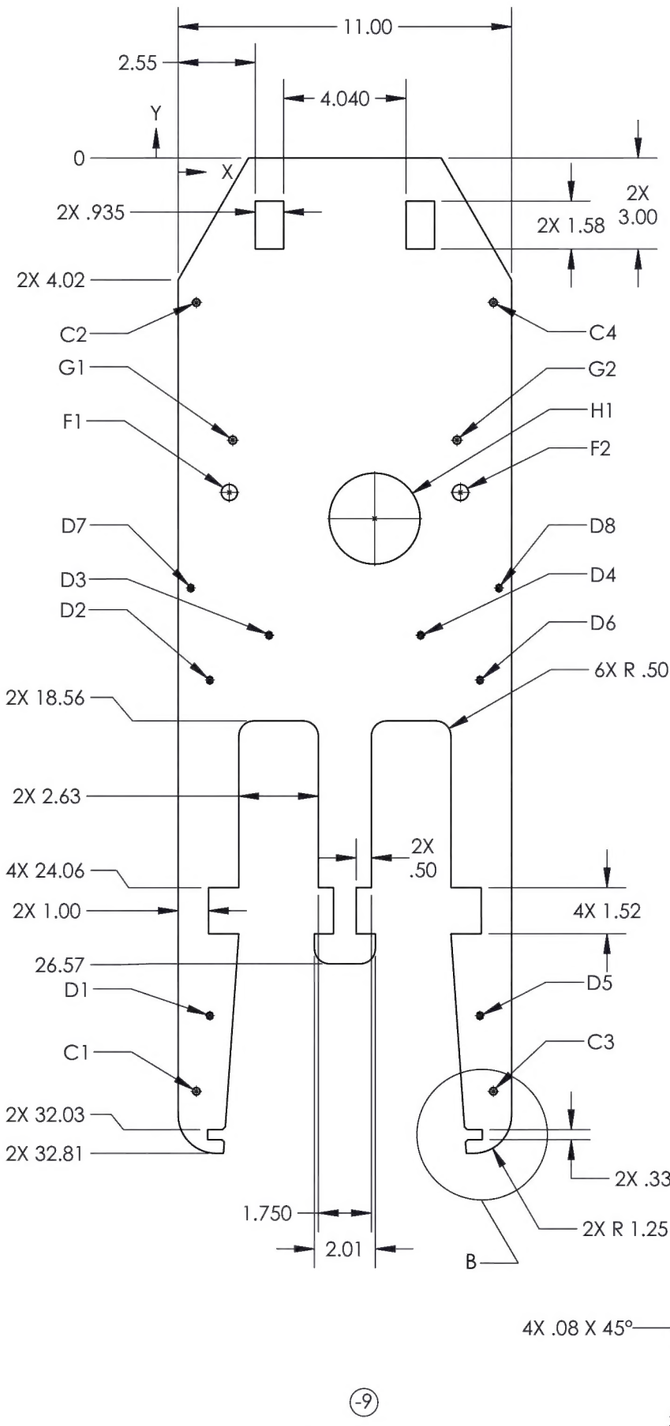
FINISH: SEE -3 WELDMENT

SPEC:

USED ON MODEL

SCALE 1:4 DATE 12/3/2014 SHEET 6 OF 57

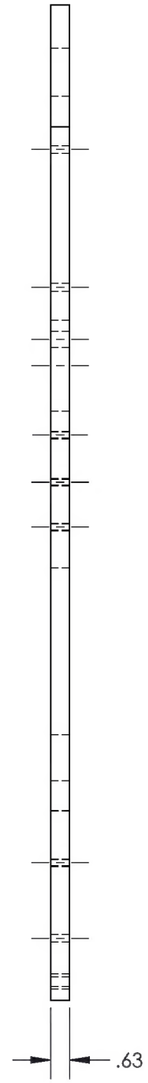
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	REMOVED 2 HOLES USED WITH -59	1/6/2015	PW	JG
2	15-0149	**-9** DELETED HOLES E1, E2, E3, E4. ADDED HOLES D7, D8.	6/24/2015	PMW	JAG

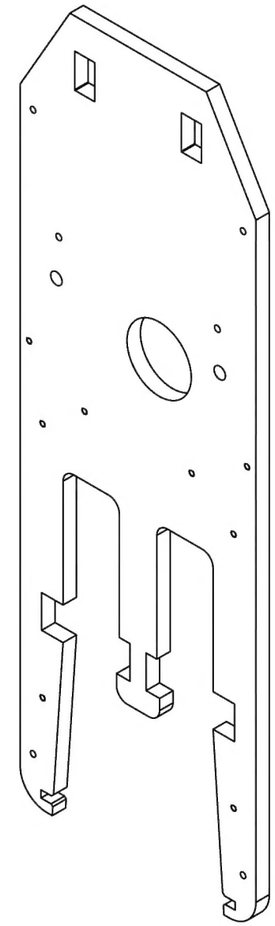


-9

OPEN HOLE FRAME

DETAIL B
SCALE 1 : 4





TAG	X LOC	Y LOC	SIZE
C1	.60	-30.77	∅ .2496 / .2490 THRU
C2	.60	-4.76	
C3	10.40	-30.77	
C4	10.40	-4.76	
D1	1.04	-28.27	1/4-20 UNC - 2B THRU ALL
D2	1.04	-17.21	
D3	3.00	-15.73	
D4	8.00	-15.73	
D5	9.96	-28.27	
D6	9.96	-17.21	
D7	.42	-14.18	
D8	10.59	-14.18	
F1	1.69	-11.03	∅ .53 THRU ALL
F2	9.31	-11.03	
G1	1.80	-9.30	∅ .27 THRU ALL
G2	9.20	-9.30	
H1	6.48	-11.89	∅3.00 THRU

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-9 | REV 2

MAT'L HR P&O | DRAWN BY: CLOUGH

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

APPROVED J Gilbert

HEAT TREAT

FINISH SEE -3 WELDMENT

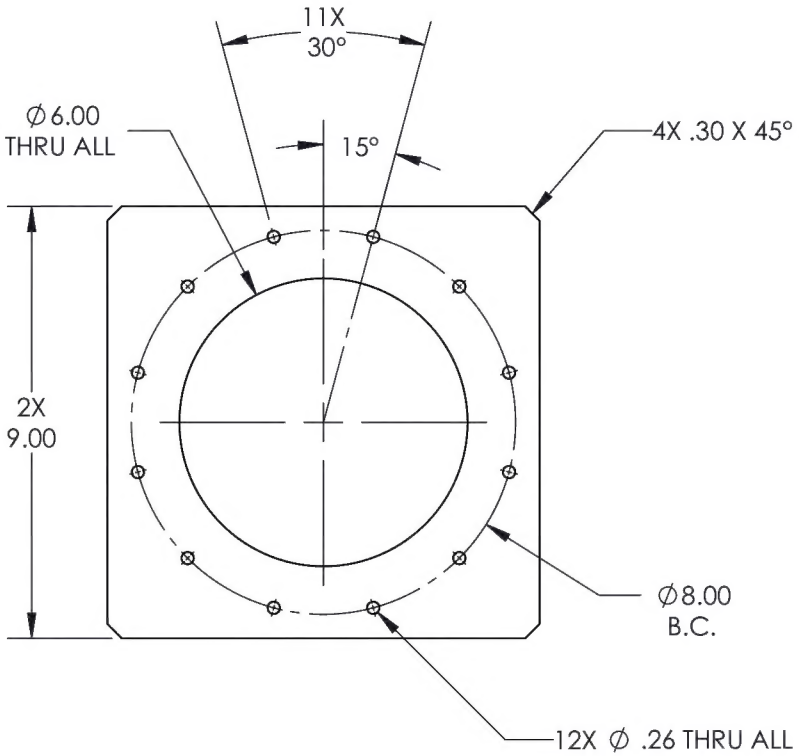
SPEC

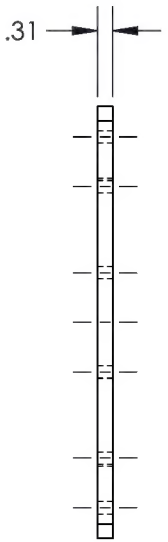
USED ON MODEL

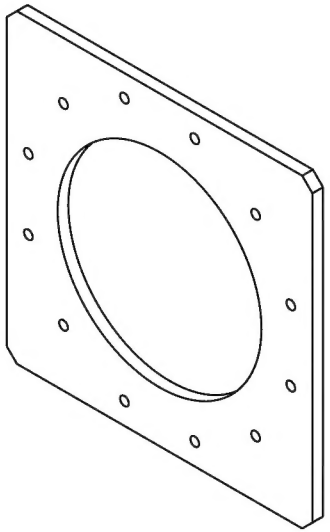
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:5 | DATE 10/25/2013 | SHEET 7 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







-11

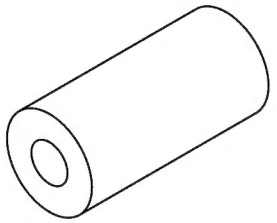
FRAME FLANGE

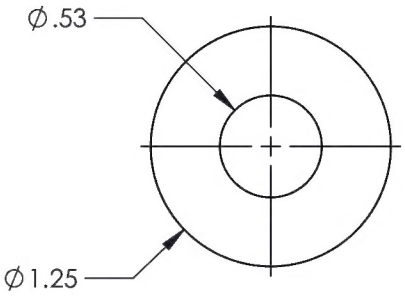
DART AEROSPACE

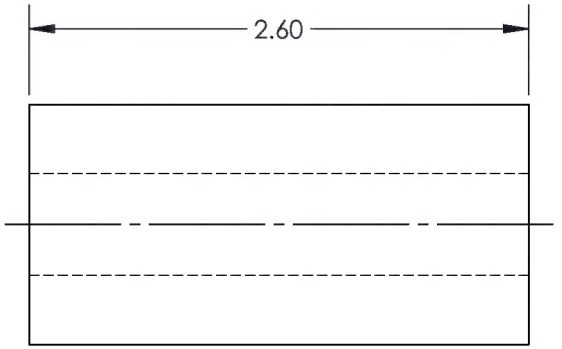
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-11		REV 2
MAT'L HR P&O	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1	APPROVED J Gilbert	
	HEAT TREAT	
	FINISH SEE -3 WELDMENT	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL	
SCALE 1:4	DATE 12/2/2014	SHEET 8 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







(-13)

BOSS, HOOK

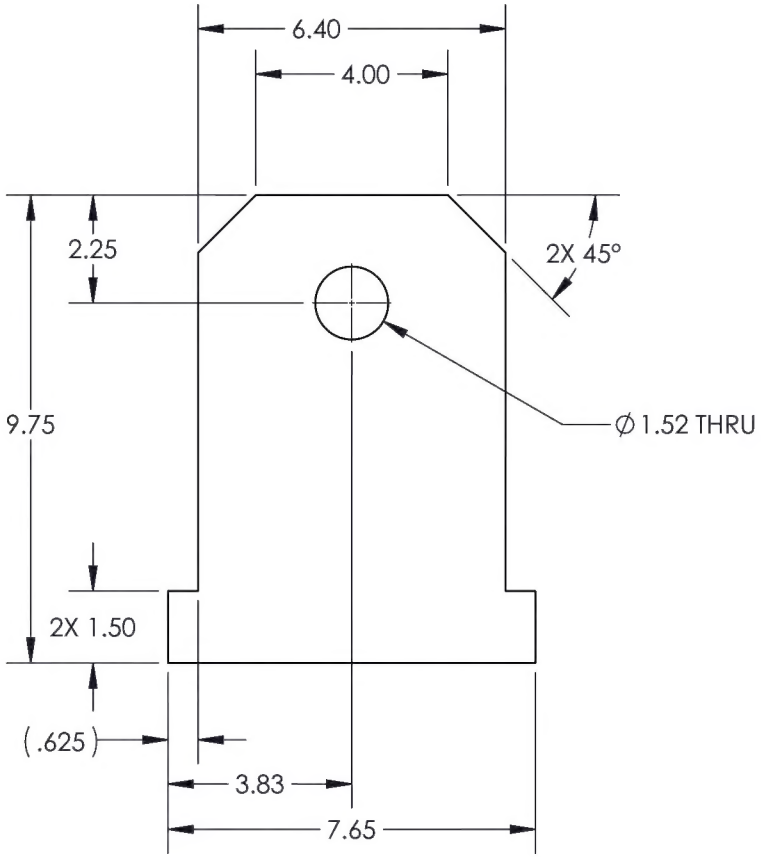
DART AEROSPACE

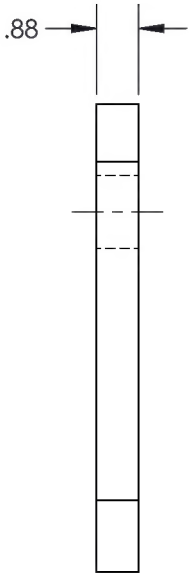
TITLE
VERTICAL CAPTURE TRANSPORT

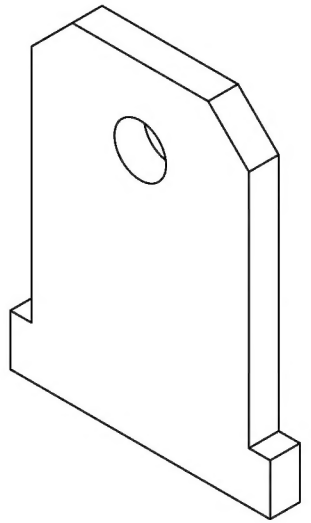
DWG NO. VCT-3-13		REV 2
MAT'L A36	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE -3 WELDMENT SPEC USED ON MODEL	
SCALE 1:1	DATE 12/2/2014	SHEET 9 OF 57

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	INCREASED WIDTH BY .06 TO 6.40	1/6/2015	PW	JG







(-15)

LIFTING PLATE

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

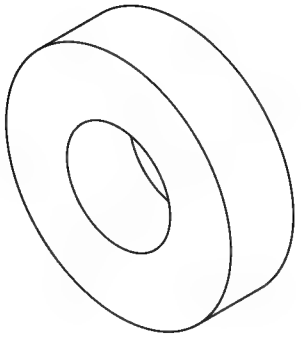
DWG NO.	VCT-3-15
REV	2
MAT'L	HR P&O
DRAWN BY:	DUERFELDT
APPROVED	J Gilbert
HEAT TREAT	
FINISH	SEE -3 WELDMENT
SPEC	
	USED ON MODEL

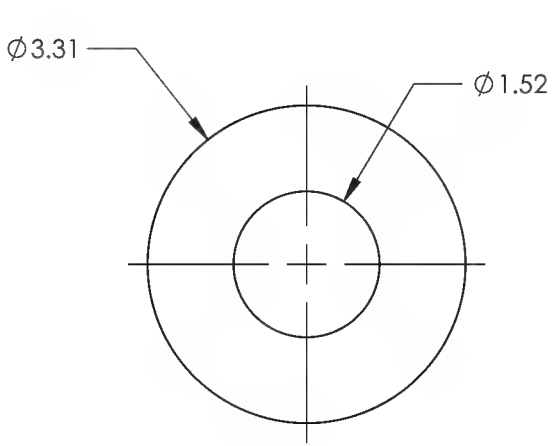
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

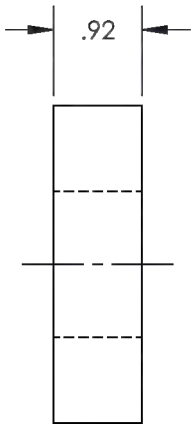
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE	DATE	
1:4	12/3/2014	SHEET 10 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







(-17)

LIFTING BOSS

DART AEROSPACE

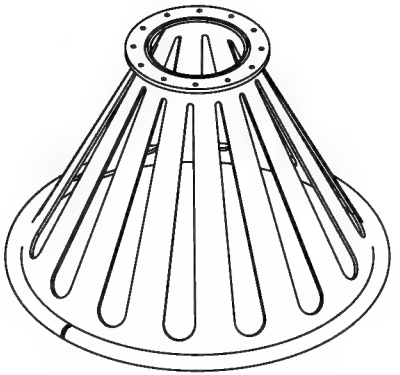
TITLE
VERTICAL CAPTURE TRANSPORT

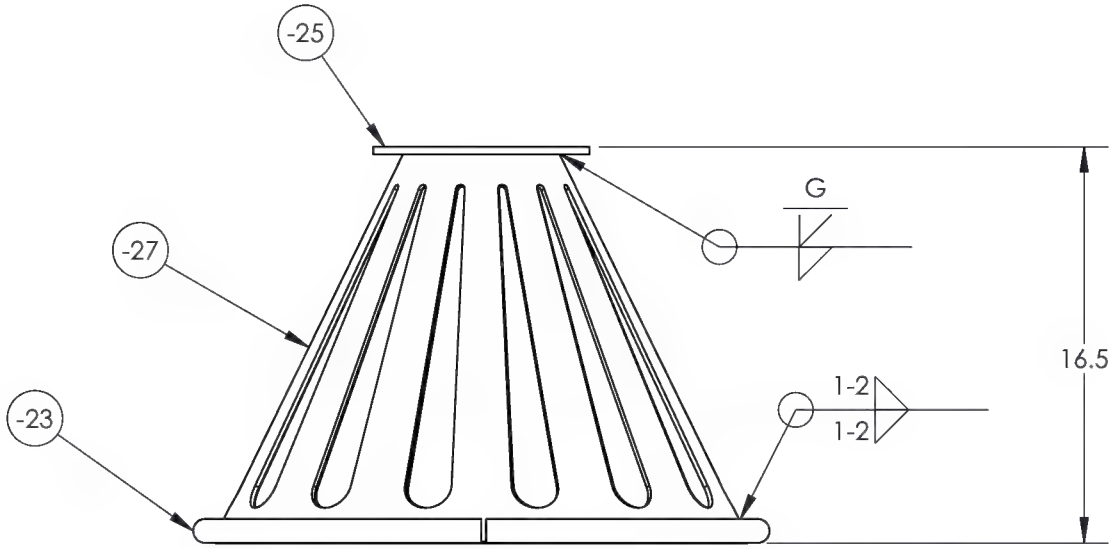
DWG NO.	REV
VCT-3-17	2

MAT'L A36	DRAWN BY: DUERFELDT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1	APPROVED J Gilbert
	HEAT TREAT
	FINISH SEE -3 WELDMENT
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL

SCALE	DATE	SHEET
1:2	12/3/2014	SHEET 11 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





-21

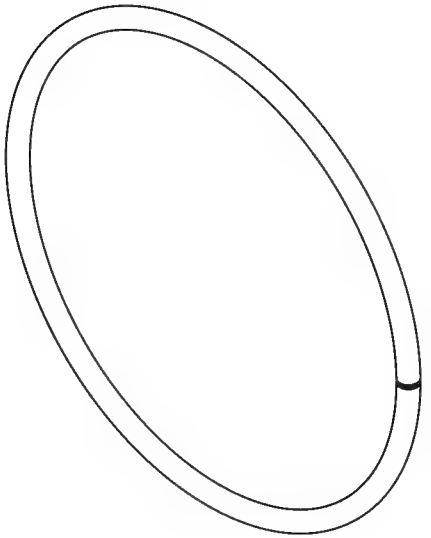
CONE WELDMENT

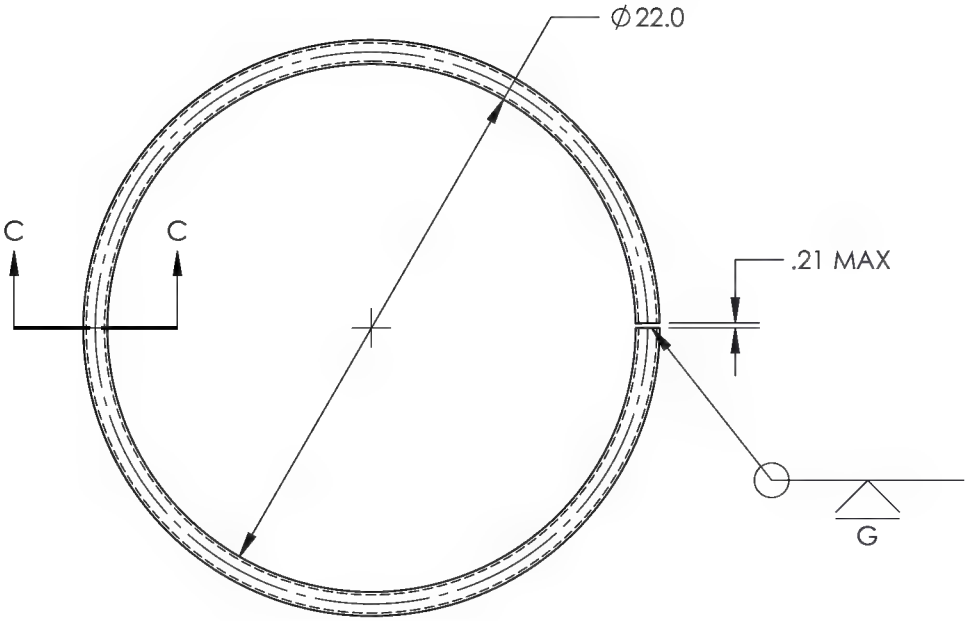
DART AEROSPACE

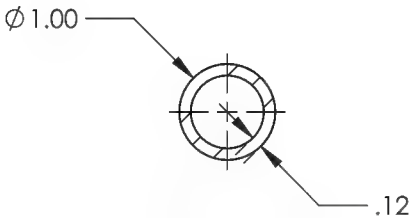
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-21		REV 2
MAT'L	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH POWDER COAT SPEC GLOSS WHITE USED ON MODEL	
SCALE 1:8	DATE 10/25/2013	SHEET 12 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







SECTION C-C
SCALE 1 : 2

(-23)

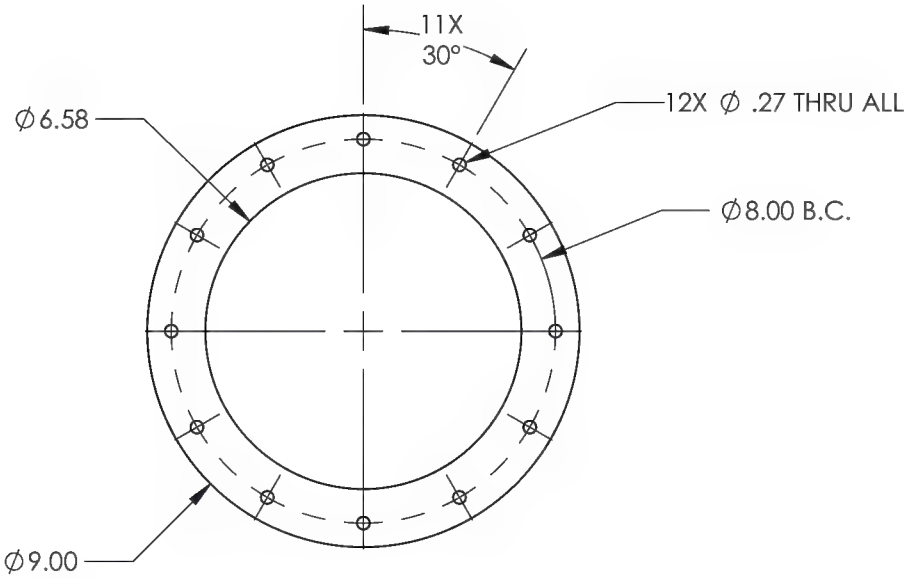
CONE RING

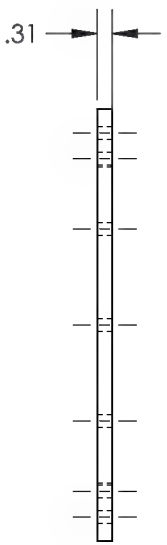
DART AEROSPACE

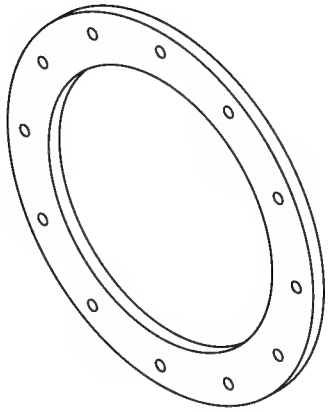
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-23		REV 2
MAT'L C.D.S. 1018	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -39 SPEC USED ON MODEL	
SCALE 1:8	DATE 10/25/2013	SHEET 13 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







-25

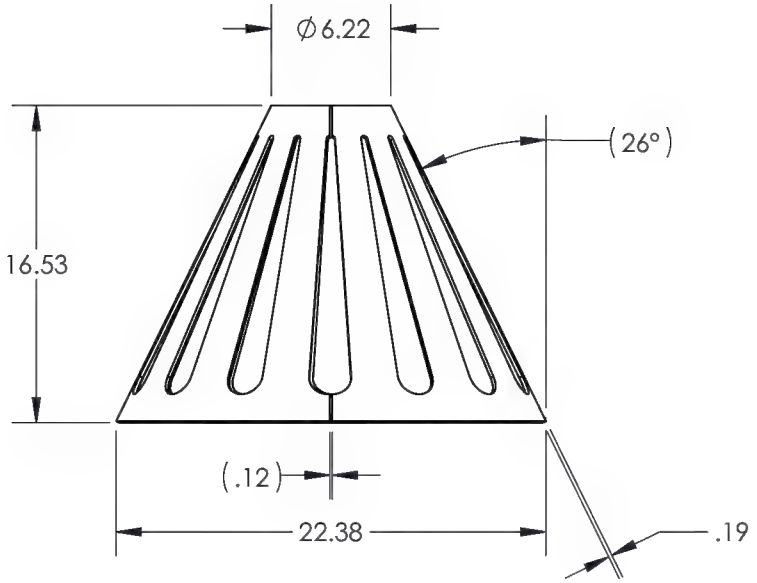
CONE FLANGE

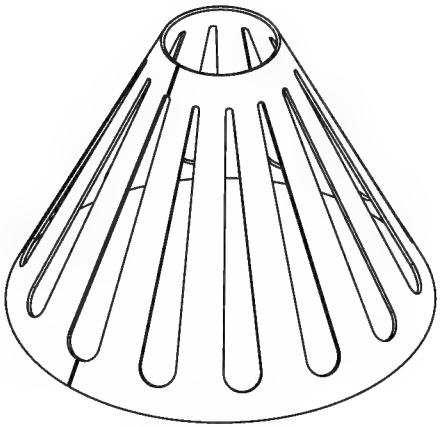
DART AEROSPACE

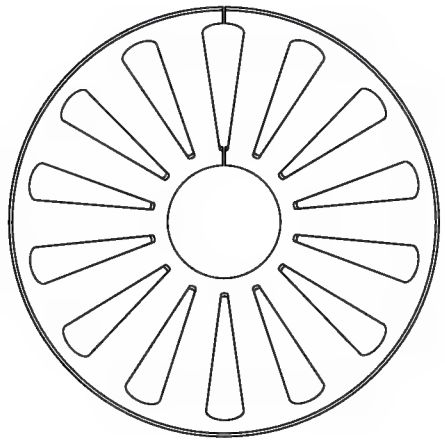
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-25		REV 2
MAT'L A36	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -39 SPEC USED ON MODEL	
SCALE 1:4	DATE 10/25/2013	SHEET 14 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







-27

CONE

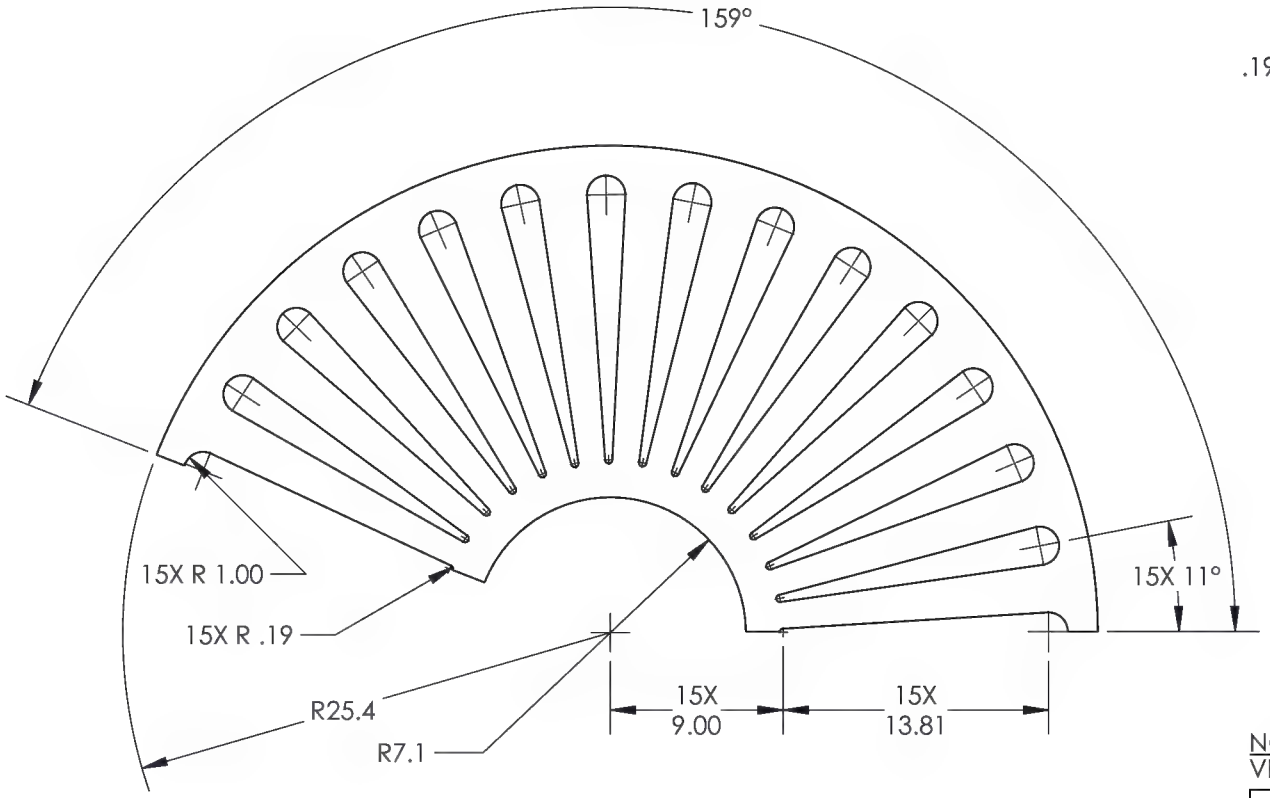
NOTE:
VENDOR OPTION: 2 SEAMS OK.

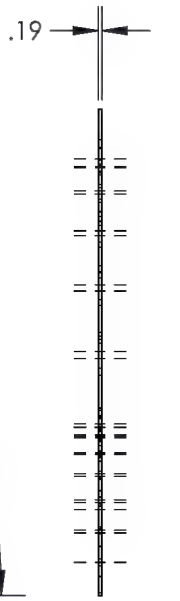
DART AEROSPACE

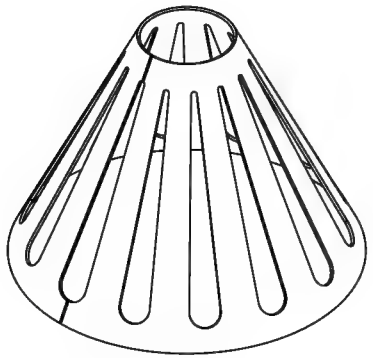
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-27		REV 2
MAT'L HR PLATE	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -39 SPEC USED ON MODEL	
SCALE 1:10	DATE 10/25/2013	SHEET 15 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
VENDOR OPTION: 2 SEAMS OK.

DIMENSIONS FOR REFERENCE ONLY

-27A

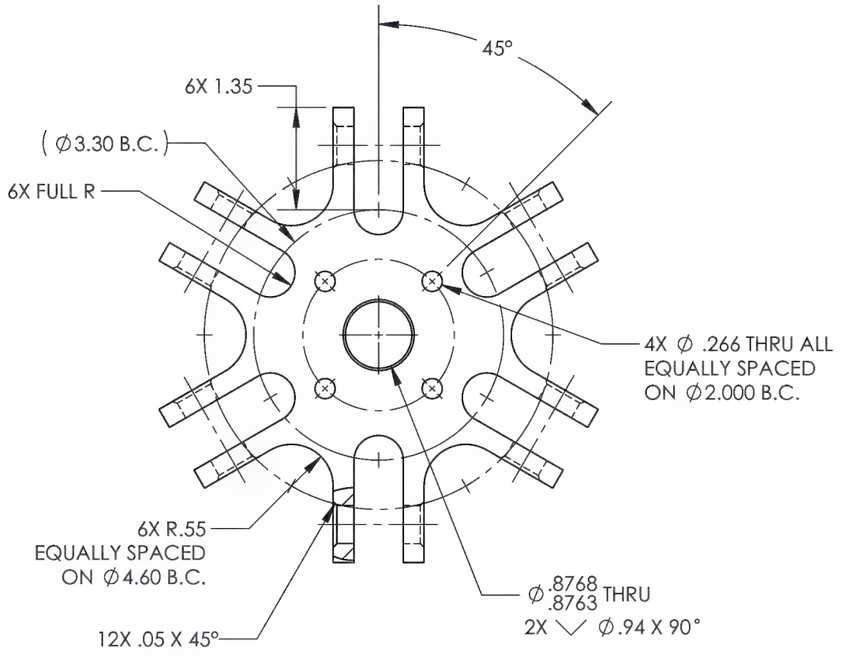
CONE FLAT PATTERN

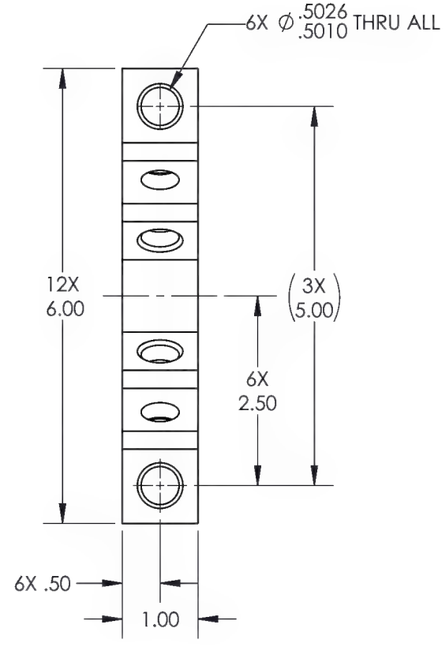
DART AEROSPACE

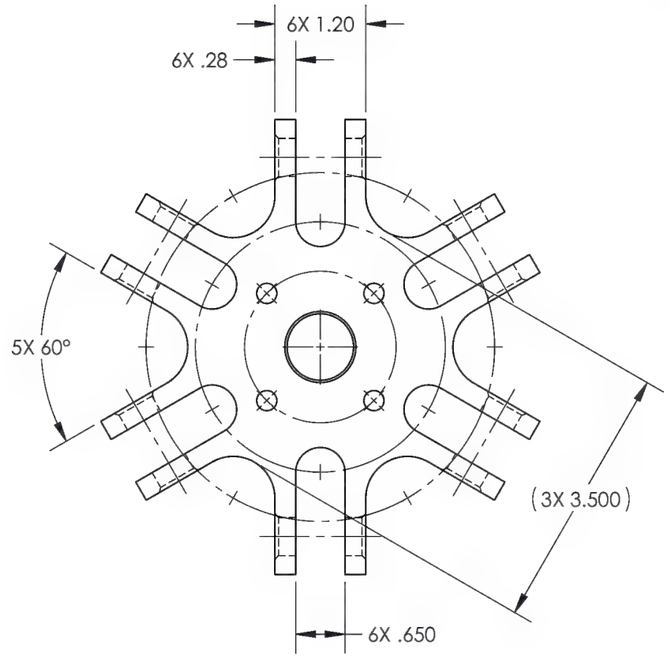
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-27A		REV 2
MAT'L HR PLATE	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -39 SPEC USED ON MODEL	
SCALE 1:10	DATE 10/25/2013	SHEET 16 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-29** CH'D BORE DIA WAS LIMITS Ø.7518-7513 IS LIMITS Ø.8768-.8763. REMOVED COUNTERSINKS.	6/22/2015	PMW	JAG







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

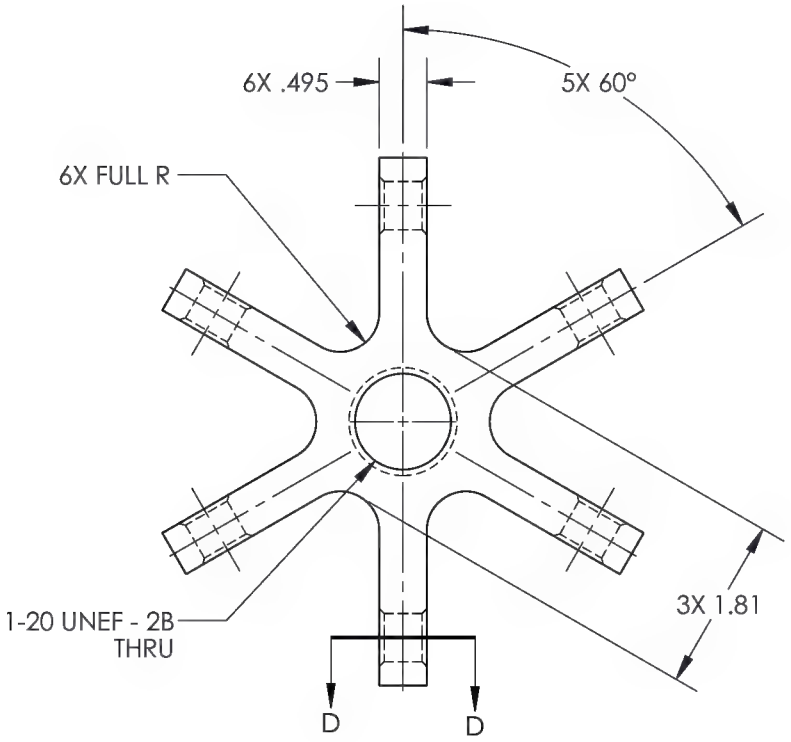
-29
MAIN RING

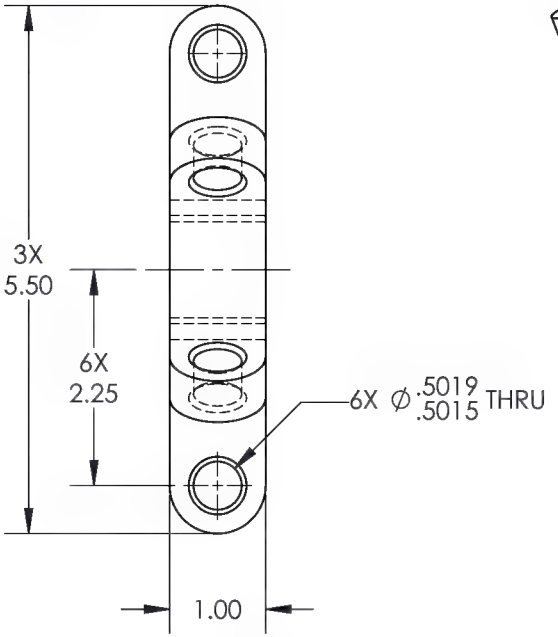
DART AEROSPACE

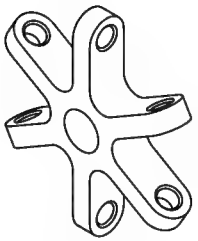
TITLE
VERTICAL TRANSPORT TRANSPORT

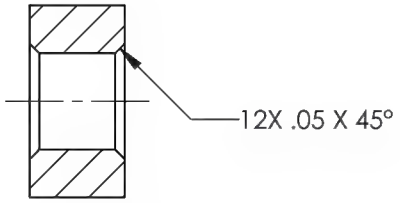
DWG NO. VCT-3-29			REV 2
MAT'L 4140/4142		DRAWN BY:	CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1		APPROVED	J Gilbert
		HEAT TREAT	RC 35-39
		FINISH	SEE NOTE 1
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		SPEC	
		USED ON MODEL	
SCALE 1:2	DATE 12/2/2014	SHEET 17 OF 57	

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









SECTION D-D
SCALE 1 : 1

(-31)

CROSS

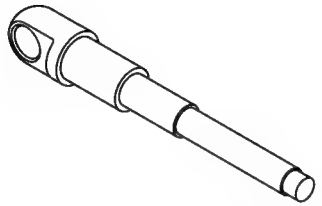
NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

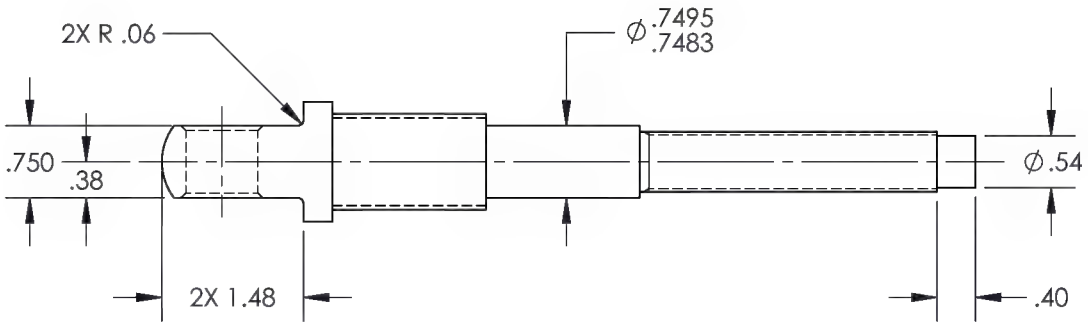
DART AEROSPACE

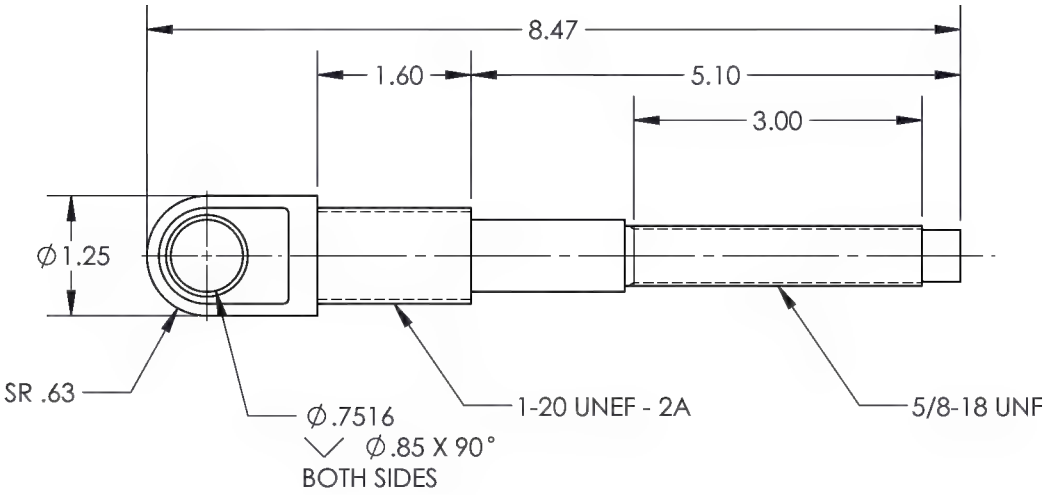
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-31		REV 2
MAT'L 4140/4142	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1	APPROVED J Gilbert	
	HEAT TREAT RC 35-39	
	FINISH SEE NOTE 1	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL	
SCALE 1:2	DATE 12/2/2014	SHEET 18 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-33** CH'D ROD DIA WAS LIMITS Ø.6240-.6230 IS LIMITS Ø.7495-.7483.	6/22/2015	PMW	JAG







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

(-33)

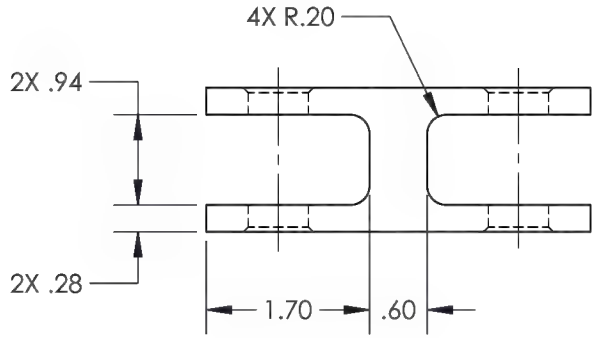
PUSH ROD

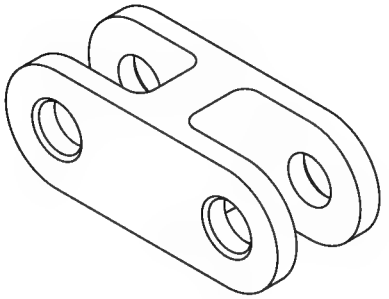
DART AEROSPACE

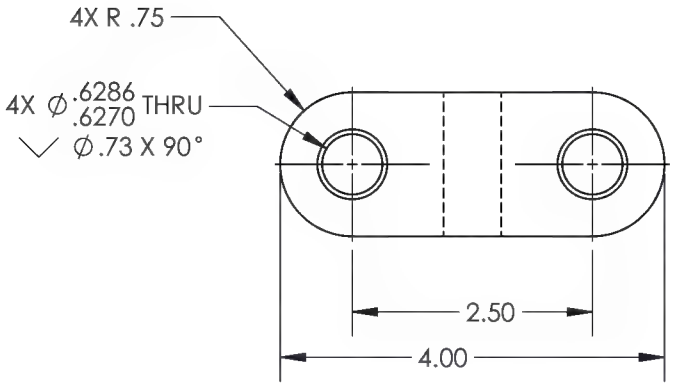
TITLE: VERTICAL CAPTURE TRANSPORT

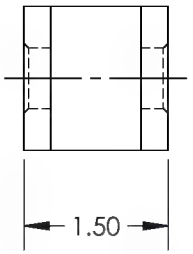
DWG NO. VCT-3-33		REV 2
MAT'L 4140/4142 Q&T	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:2	DATE 12/2/2014	SHEET 19 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









NOTE:
1. NICKEL PLATE .0004-.0006, BAKE AFTER PLATING.

-35

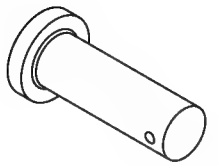
PUSH ROD LINK

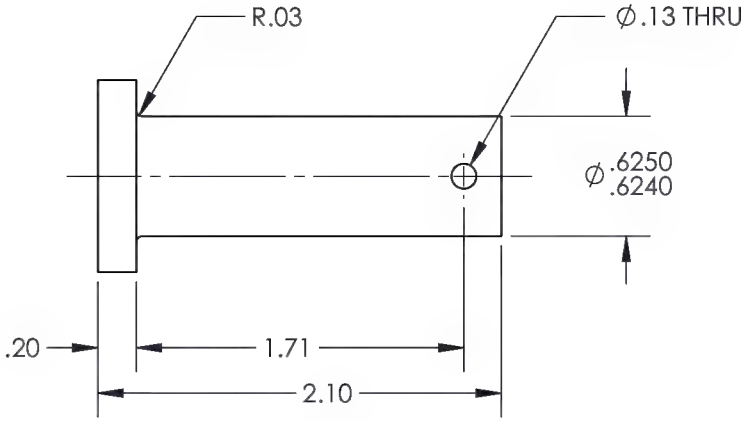
DART AEROSPACE

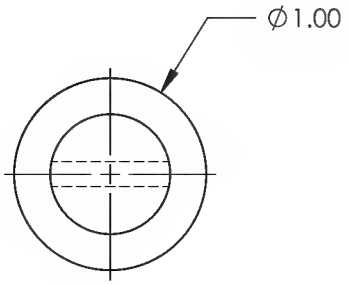
TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.	VCT-3-35	REV 2
MAT'L 4140/4142	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT RC 35-39 FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:2	DATE 12/2/2014	SHEET 20 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO.	REV
VCT-3-37	2

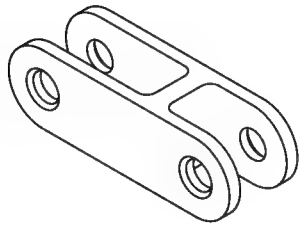
MAT'L 4140/4142 Q&T	DRAWN BY: CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1	APPROVED J Gilbert
	HEAT TREAT
	FINISH SEE NOTE 1
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL

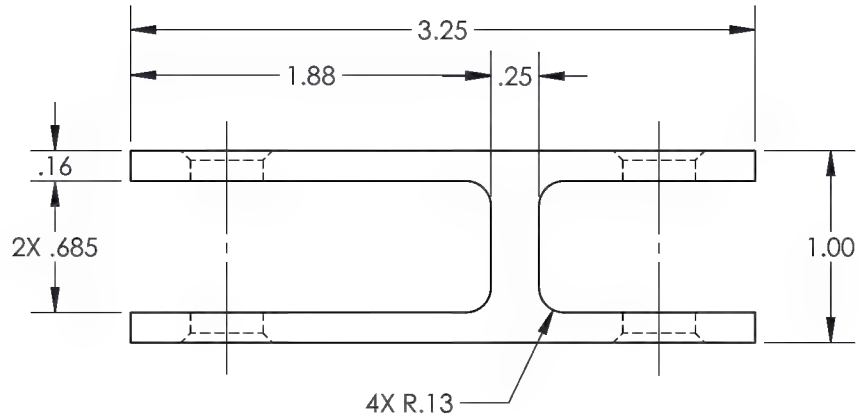
SCALE	DATE	SHEET
1:1	12/2/2014	SHEET 21 OF 57

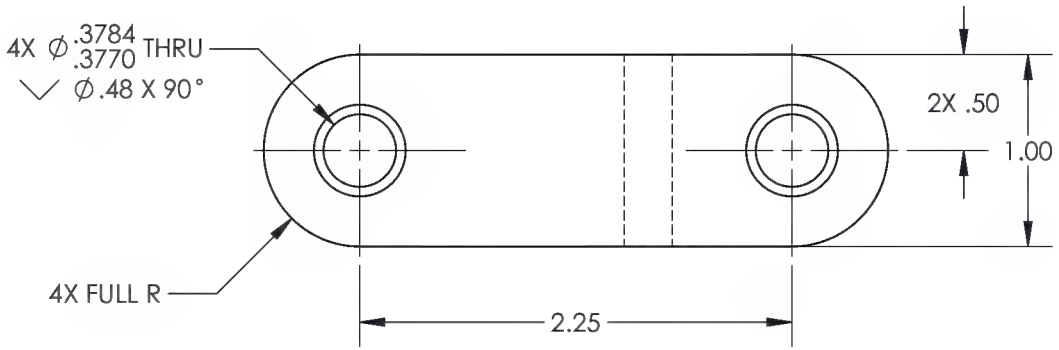
-37

PIN, PUSH ROD LINK

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

DART AEROSPACE

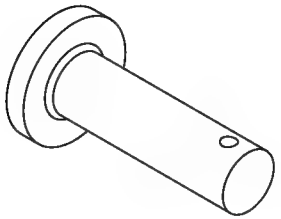
TITLE
VERTICAL CAPTURE TRANSPORT

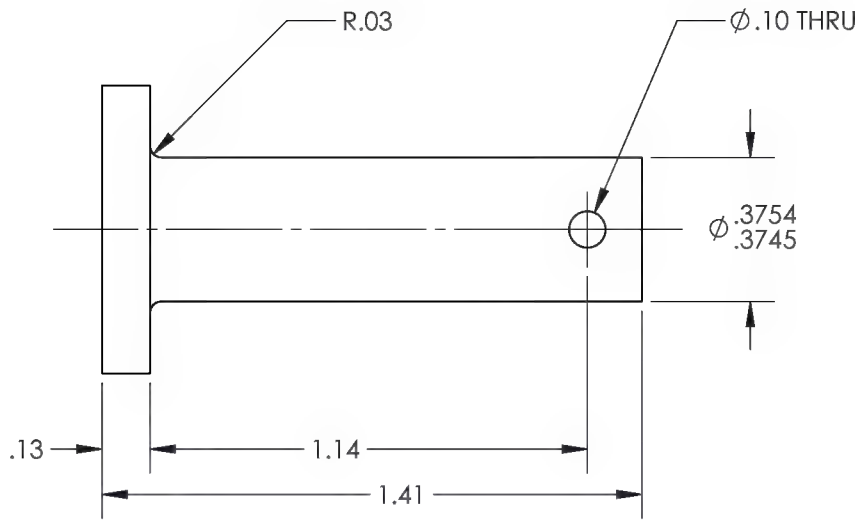
DWG NO. VCT-3-39		REV 2
MAT'L 4140/4142	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT RC 35-39 FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:1	DATE 12/2/2014	SHEET 22 OF 57

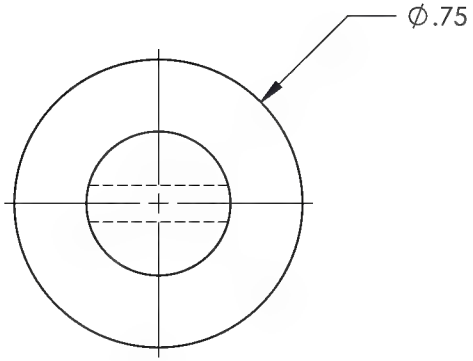
(-39)

LINK

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

-41

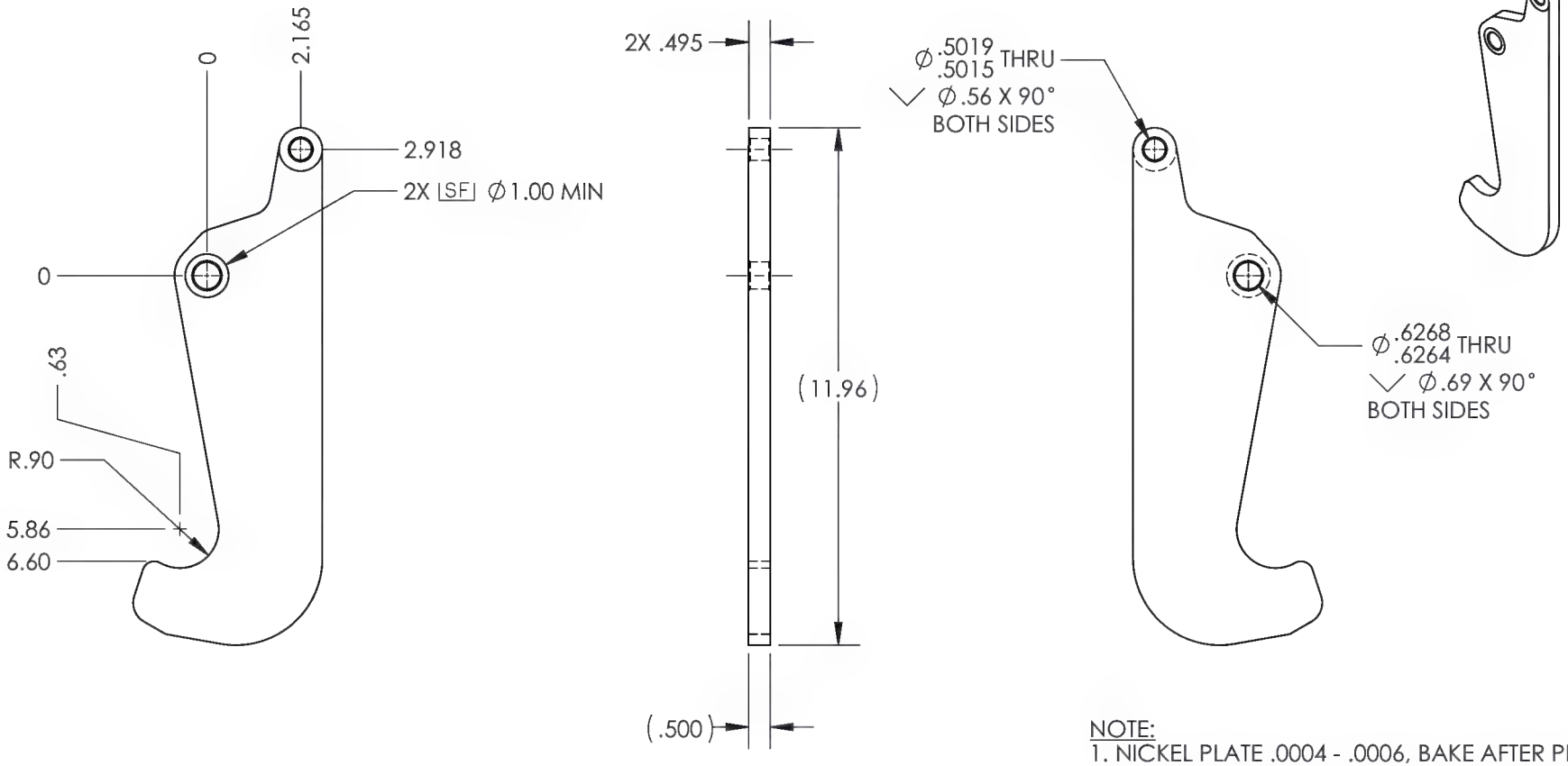
PIN, LINK

DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-41		REV 2
MAT'L 4140/4142 Q&T	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 2:1	DATE 12/2/2014	SHEET 23 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.
2. USE DXF PROFILE FOR PART CONTOURS.

(-43)

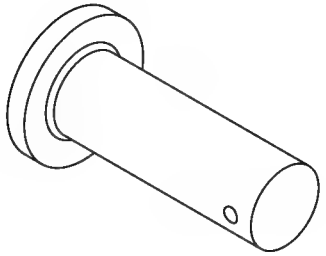
ARM

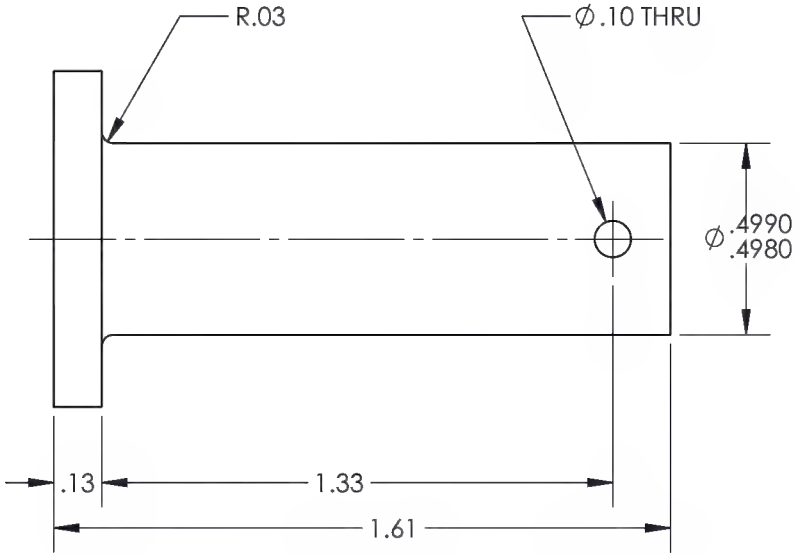
DART AEROSPACE

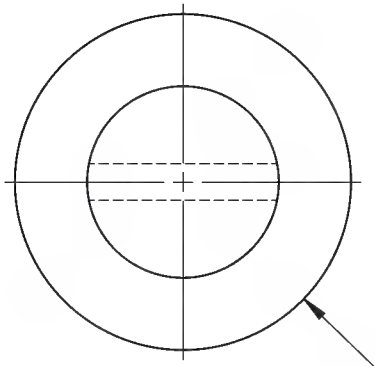
TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.	VCT-3-43	REV 2
MAT'L 4140/4142	DRAWN BY:	CLOUGH
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED	J Gilbert
	HEAT TREAT	RC 48-52
	FINISH	SEE NOTE 1
	SPEC	
	USED ON MODEL	
SCALE 1:4	DATE 12/2/2014	SHEET 24 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

-45

PIN, ARM

DART AEROSPACE

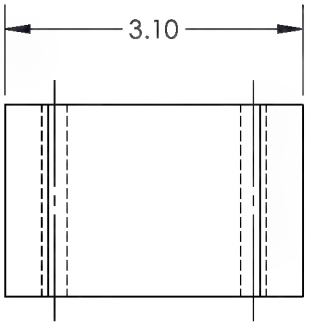
TITLE
VERTICAL CAPTURE TRANSPORT

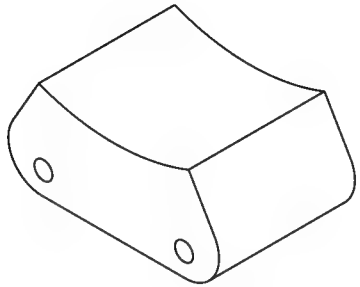
DWG NO.	REV
VCT-3-45	2

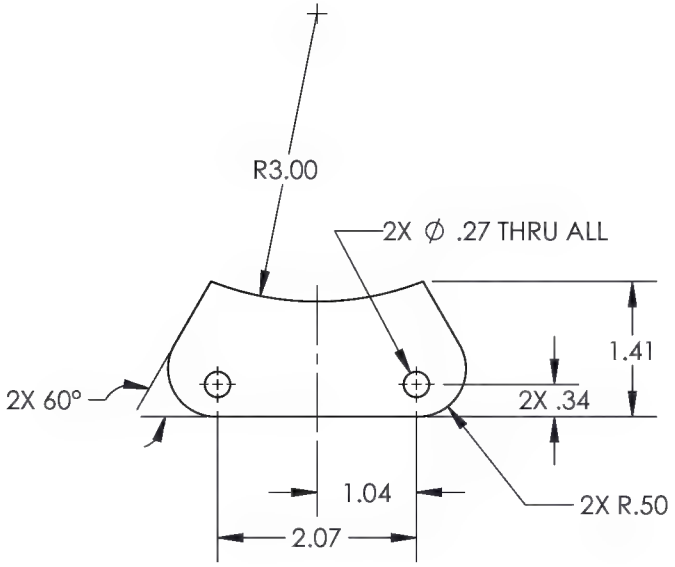
MAT'L 4140/4142 Q&T	DRAWN BY: DUERFELDT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL

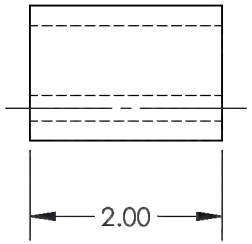
SCALE	DATE	SHEET
2:1	12/2/2014	SHEET 25 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









(-47)

ANCHOR GUARD

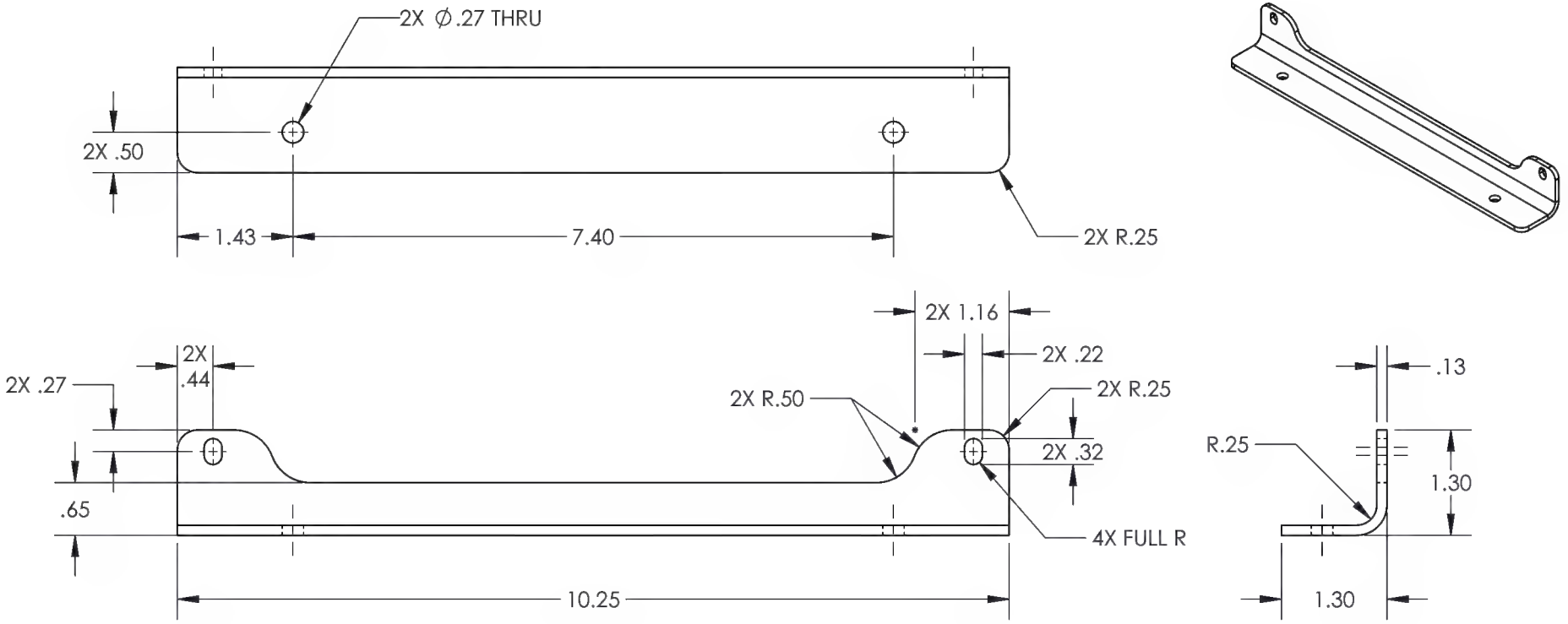
DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-47		REV 2
MAT'L 6061	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH CLEAR ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS I USED ON MODEL	
SCALE 1:2	DATE 12/4/2014	SHEET 26 OF 57

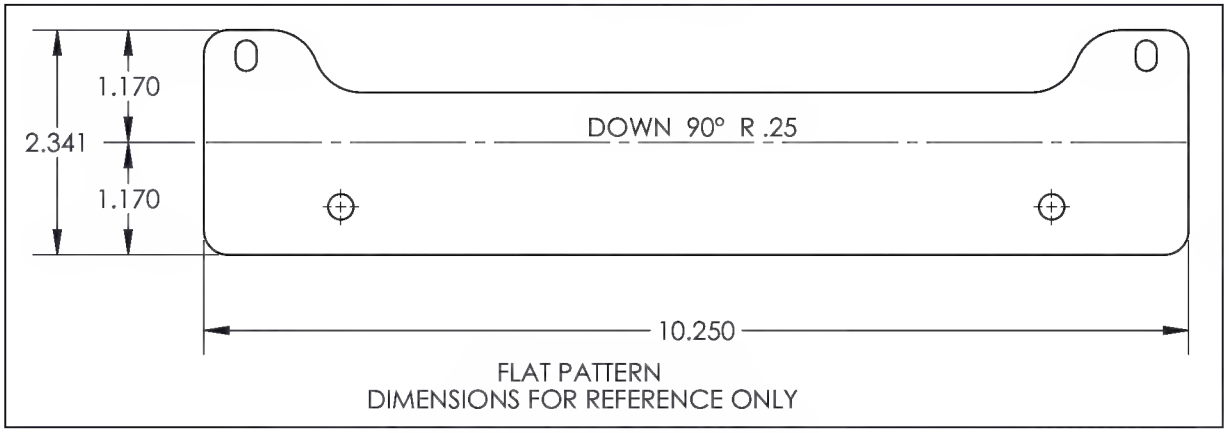
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-49** CH'D TITLEBLOCK TOLERANCES.	6/22/2015	PMW	JAG



-49

BRACKET, BOX



FLAT PATTERN
DIMENSIONS FOR REFERENCE ONLY

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-49 REV 2

MAT'L 1018

DRAWN BY: CLOUGH

APPROVED: R Clough

HEAT TREAT

FINISH: POWDER COAT

SPEC: GLOSS WHITE

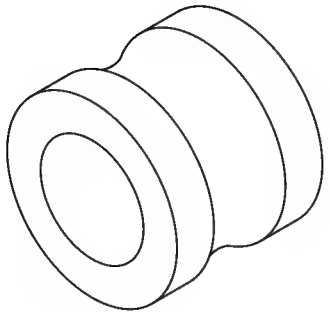
USED ON MODEL

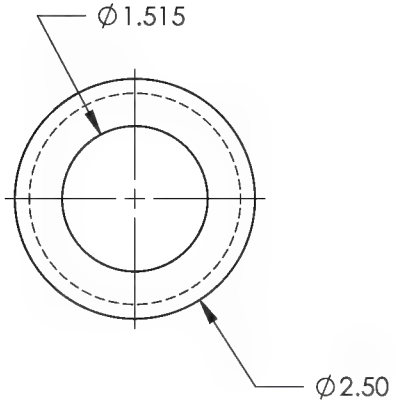
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±.5°
.X ± .1

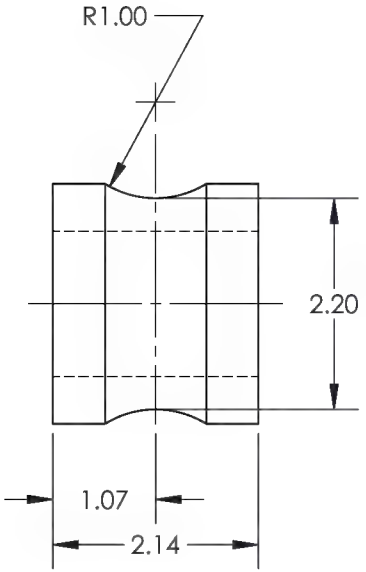
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:2 DATE 12/2/2014 SHEET 27 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

DART AEROSPACE

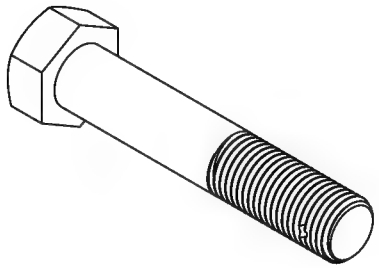
TITLE
VERTICAL CAPTURE TRANSPORT

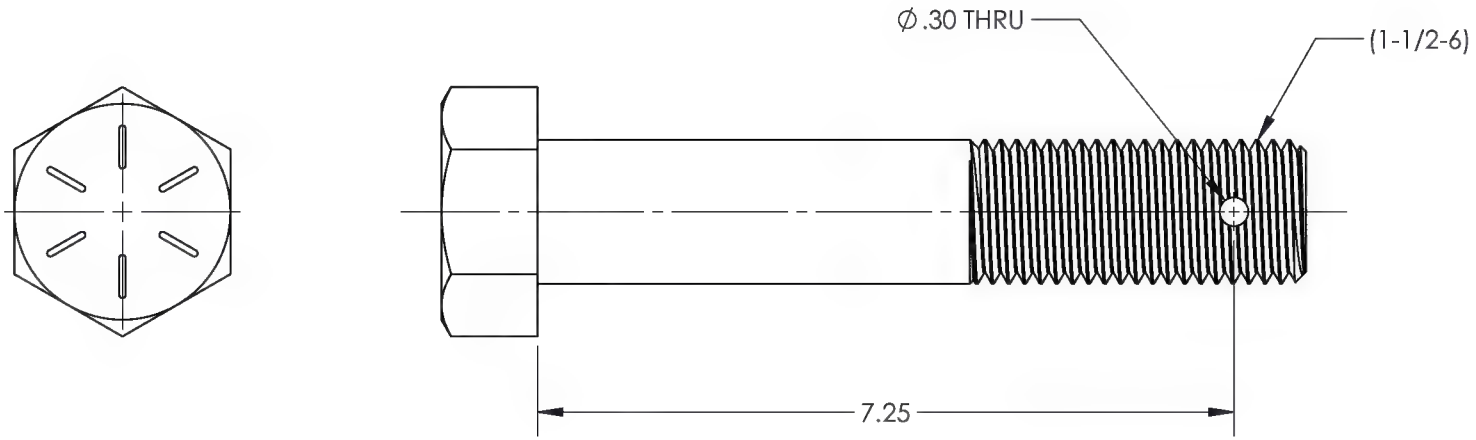
DWG NO. VCT-3-51		REV 2
MAT'L 4140/4142 Q&T	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:2	DATE 12/2/2014	SHEET 28 OF 57

(-51)

LIFTING BUSHING

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

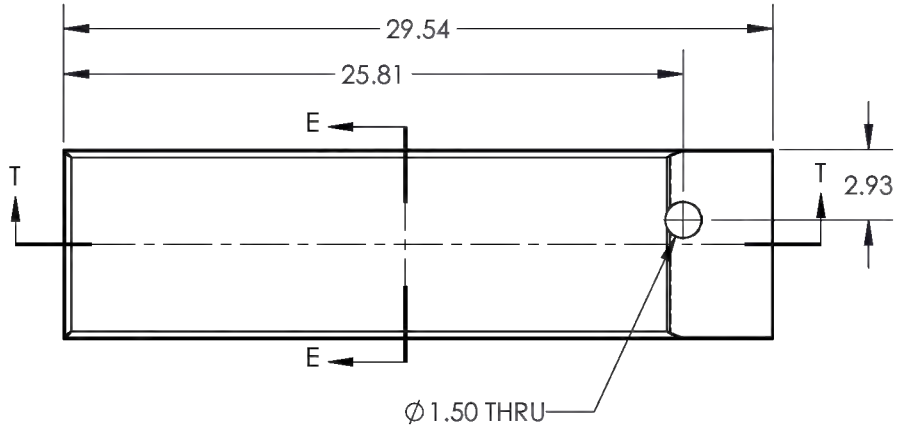
DWG NO. VCT-3-53		REV 2
MAT'L STEEL	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:2	DATE 12/4/2014	SHEET 29 OF 57

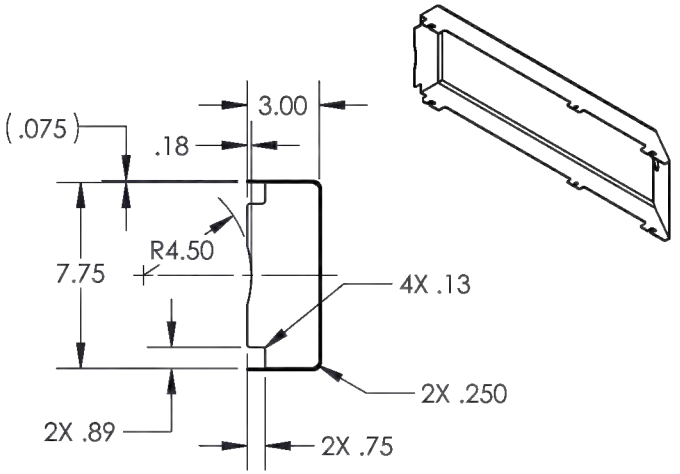
(-53)

LIFTING BOLT

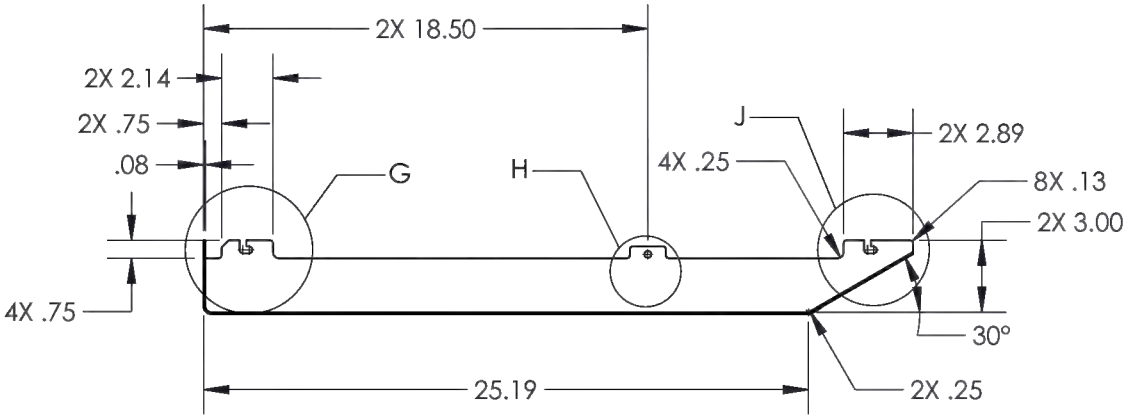
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	MOVED HOLES FROM 16.91 TO 17.91	1/6/2015	PW	JG
2	15-0149	**-55** ADDED CHAMFER 2X .30 X 45°. DELETED HOLES 4X Ø.194. ADDED HOLES 2X Ø.28. ADDED TAB.	6/22/2015	PMW	JAG

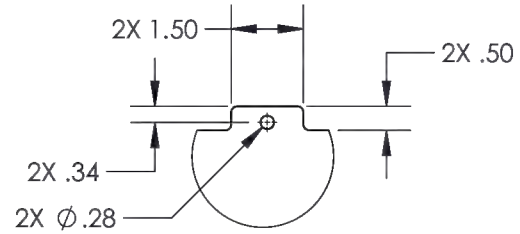




SECTION E-E

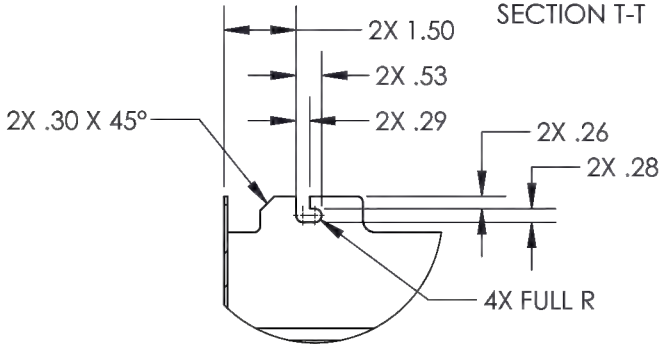


SECTION T-T

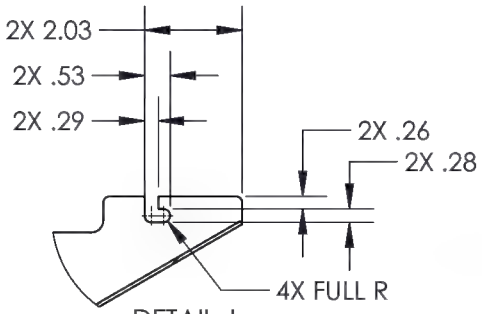


DETAIL H
SCALE 1 : 4

NOTE:
WELD ALL SEAMS AND CORNERS.



DETAIL G
SCALE 1 : 4



DETAIL J
SCALE 1 : 4

(-55)
COVER

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-55 REV 2

MAT'L 1018

DRAWN BY: GILBERT

APPROVED J Gilbert

HEAT TREAT

FINISH POWDER COAT

SPEC GLOSS WHITE

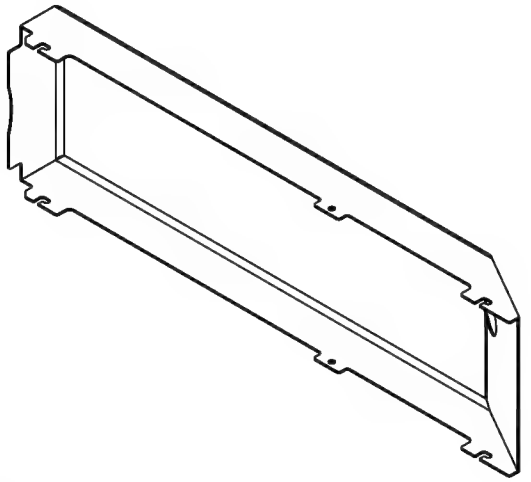
USED ON MODEL

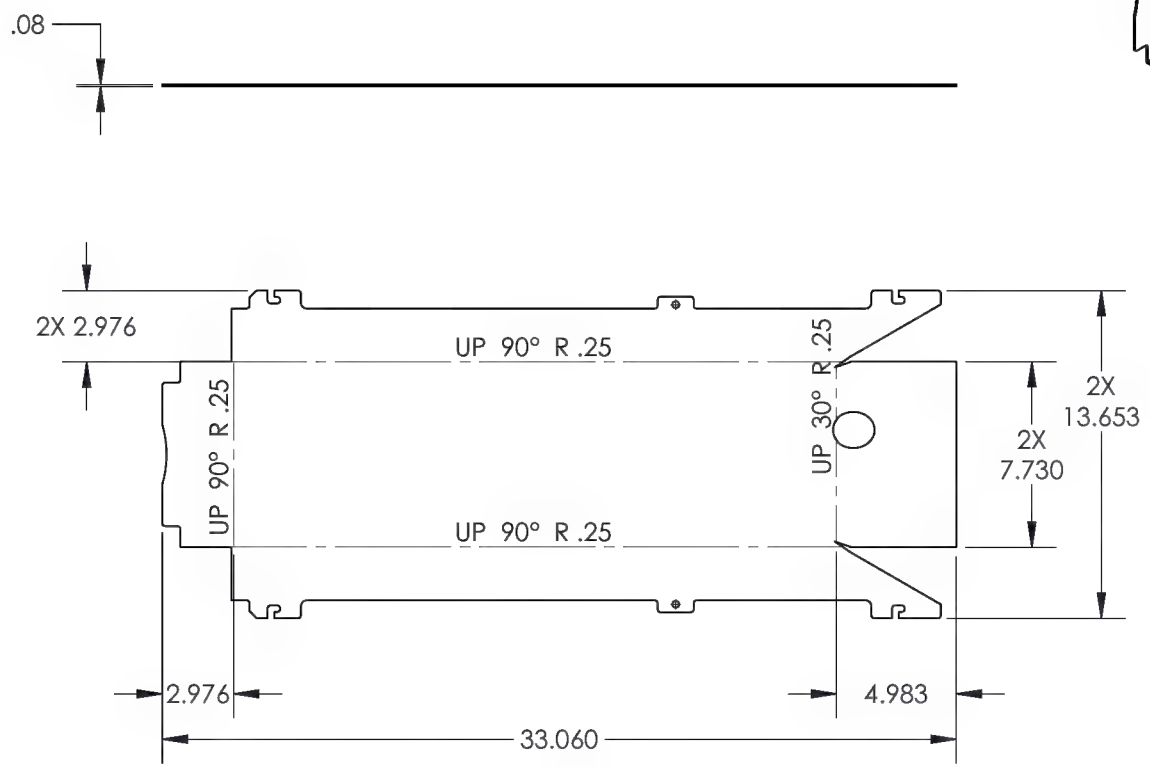
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±.5°
.X ± .1

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:8 DATE 8/5/2014 SHEET 30 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





DIMENSIONS FOR REFERENCE ONLY

-55A

COVER FLAT PATTERN

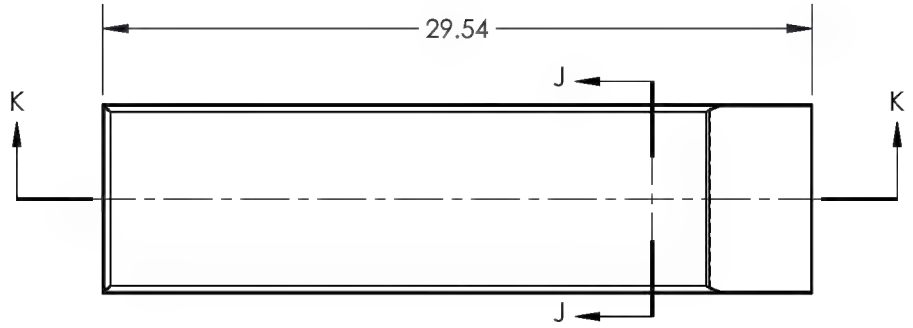
DART AEROSPACE

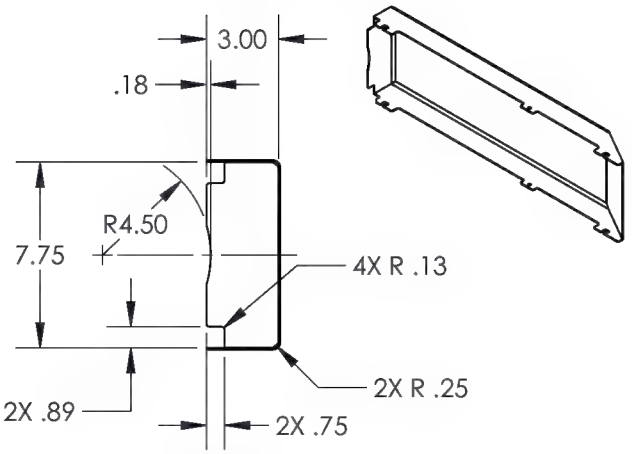
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-55A		REV 2
MAT'L 1018	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:8	DATE 8/5/2014	SHEET 31 OF 57

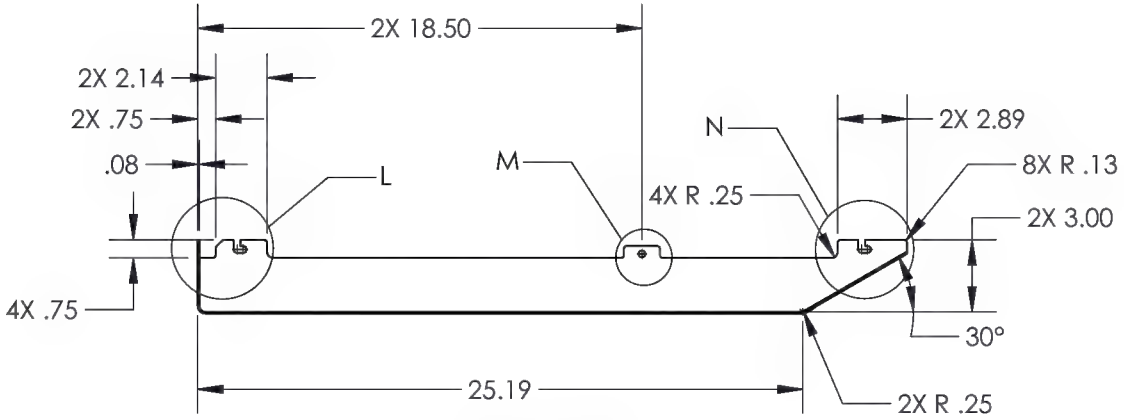
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	MOVED HOLES FROM 16.91 TO 17.91	1/6/2015	PW	JG
2	15-0149	**-57** ADDED CHAMFER 2X .30 X 45°. DELETED HOLES 4X Ø.194. ADDED HOLES 2X Ø.28. ADDED TAB.	6/22/2015	PMW	JAG

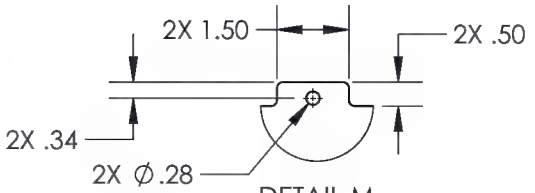




SECTION J-J

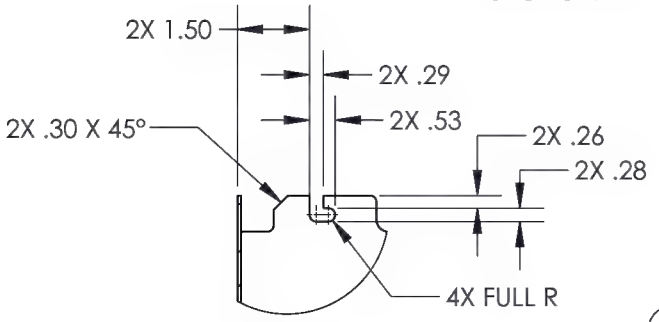


SECTION K-K



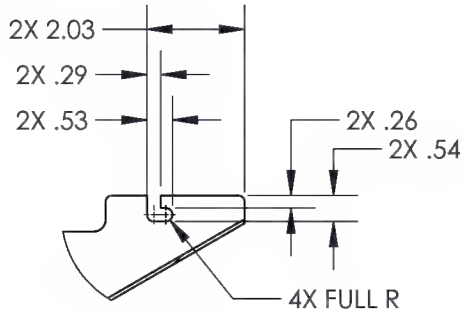
DETAIL M
SCALE 1 : 4

NOTE:
WELD ALL SEAMS AND CORNERS.



DETAIL L
SCALE 1 : 4

(-57)
COVER



DETAIL N
SCALE 1 : 4

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-57 REV 2

MAT'L 1018

DRAWN BY: GILBERT

APPROVED J Gilbert

HEAT TREAT

FINISH POWDER COAT

SPEC GLOSS WHITE

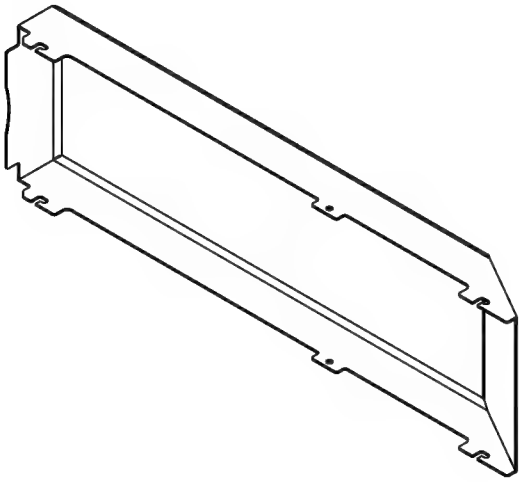
USED ON MODEL

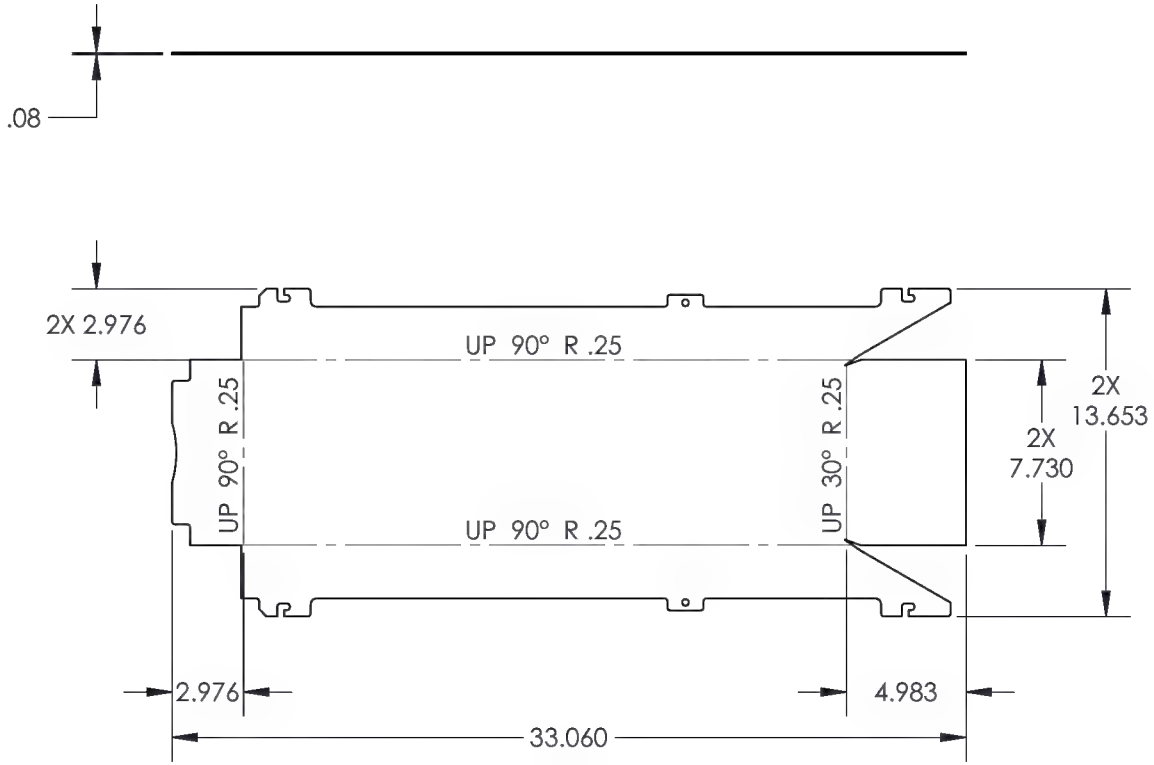
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±.5°
.X ± .1

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:8 DATE 8/5/2014 SHEET 32 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





DIMENSIONS FOR REFERENCE ONLY

-57A

COVER FLAT PATTERN

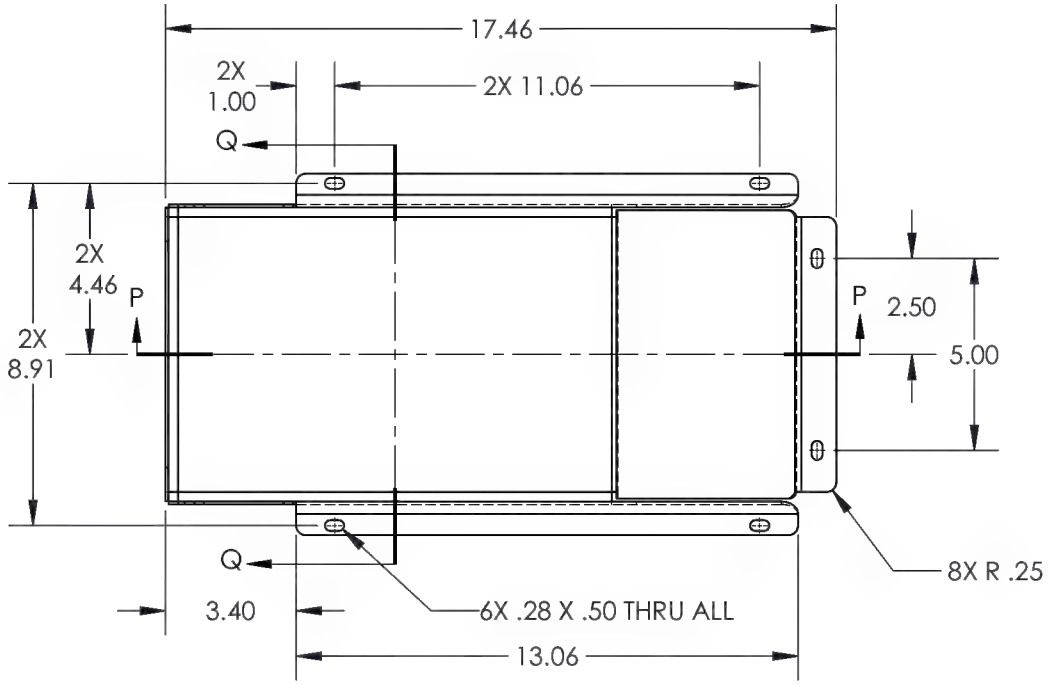
DART AEROSPACE

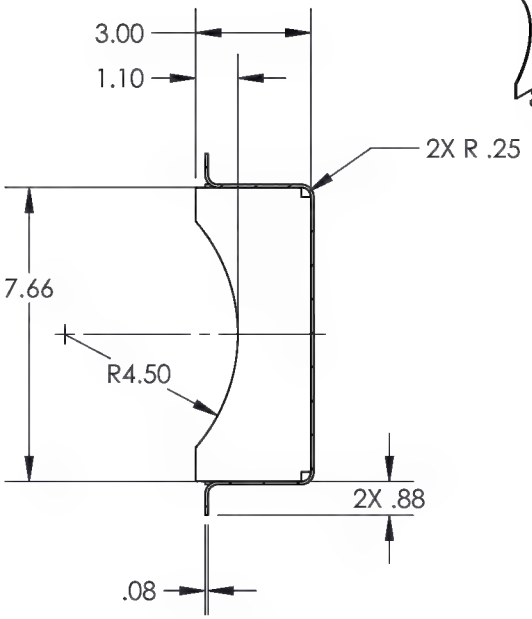
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-57A		REV 2
MAT'L 1018	DRAWN BY: GILBERT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .010 FRACTIONS ± 1/8 .XX ± .03 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:8	DATE 8/5/2014	SHEET 33 OF 57

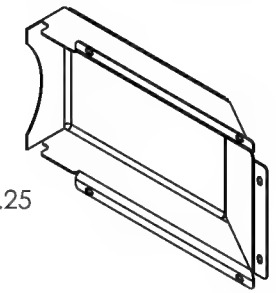
REVISIONS

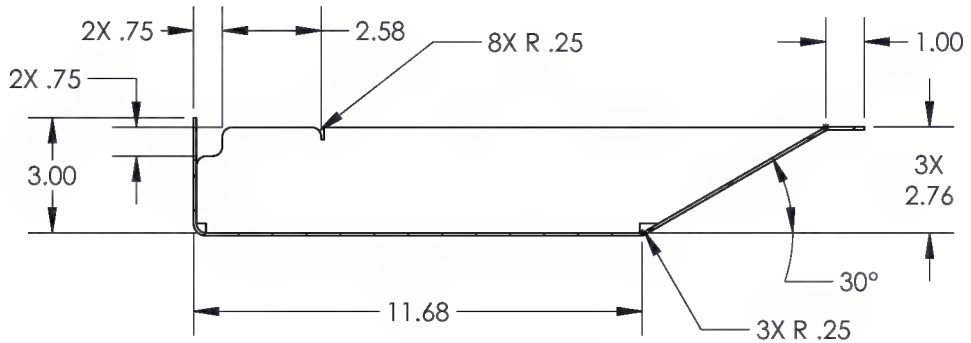
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0005	REMOVED 2 HOLES, INCREASED LENGTH TO 17.44 FROM 15.44	1/6/2015	PW	JG
2	15-0149	**-59** HOLES SLOTTED. FLANGE INTERFACE IMROVED.	6/24/2015	PMW	JAG





SECTION Q-Q





SECTION P-P

NOTE:
WELD ALL SEAMS AND CORNERS.

(-59)

SIDE COVER

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-59 REV 2

MAT'L 1018

DRAWN BY: DUERFELDT

APPROVED J Gilbert

HEAT TREAT

FINISH POWDER COAT

SPEC GLOSS WHITE

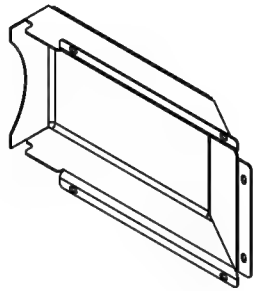
USED ON MODEL

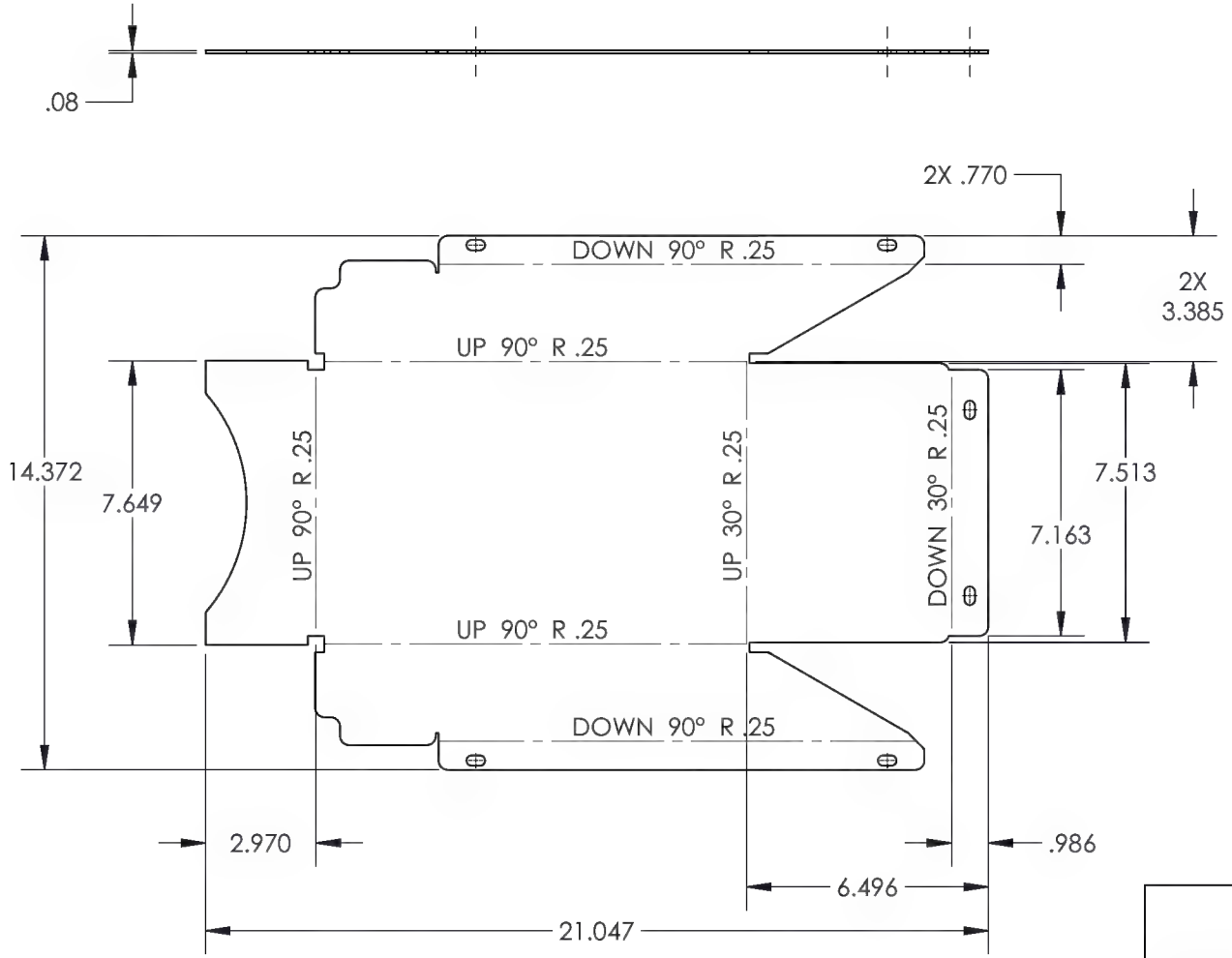
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±.5°
.X ± .1
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:5 DATE 12/11/2014 SHEET 34 OF 57

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-59A** CH'D DIM WAS 2X 7.643 IS 7.643. ADDED DIM 7.513.	6/25/2015		





DIMENSIONS FOR REFERENCE ONLY

-59A

SIDE COVER FLAT PATTERN

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-59A | REV 2

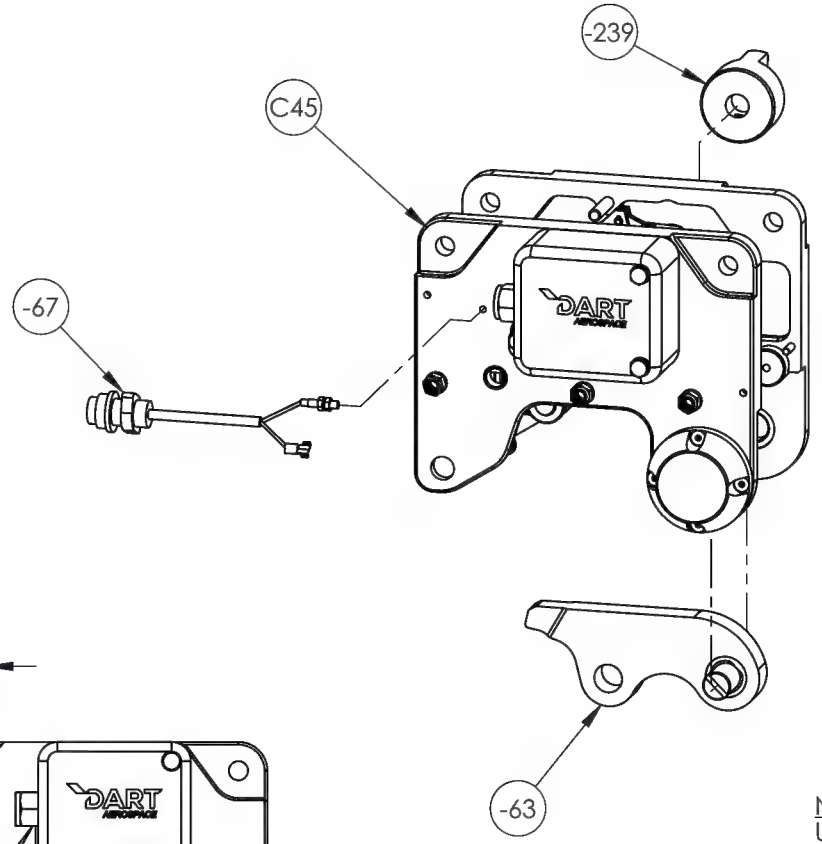
MAT'L 1018 | DRAWN BY: DUERFELDT

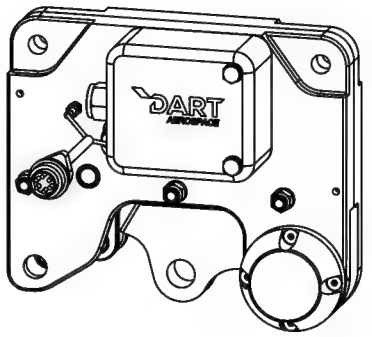
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010 FRACTIONS ± 1/8
.XX ± .03 ANGLES ±.5°
.X ± .1
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

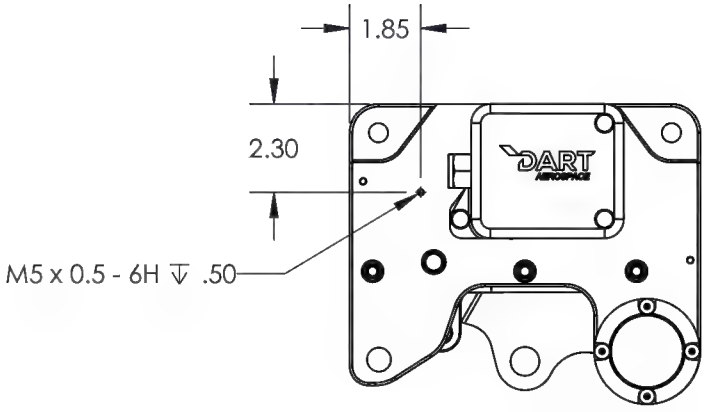
APPROVED J Gilbert
HEAT TREAT
FINISH
SPEC
USED ON MODEL

SCALE 1:5 | DATE 12/11/2014 | SHEET 35 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-61** CH'D HOLE LOCATION WAS 2.00 IS 1.85, WAS 2.60 IS 2.30. ADDED KNOB **-239**.	6/22/2015	PMW	JAG







TAP SIDE PLATE C45-11-1

(-61)

C45 VCT-3 HOOK ASSEBMLY

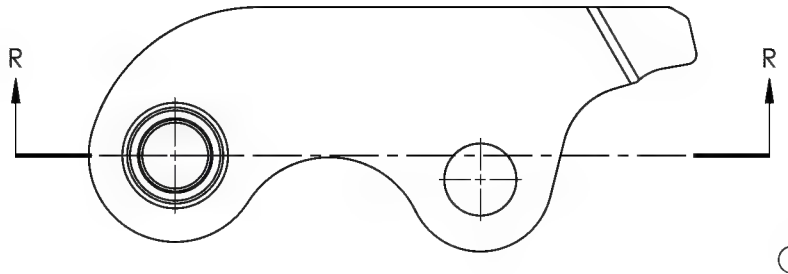
NOTE:
USE A C45 EXCEPT AS SHOWN.

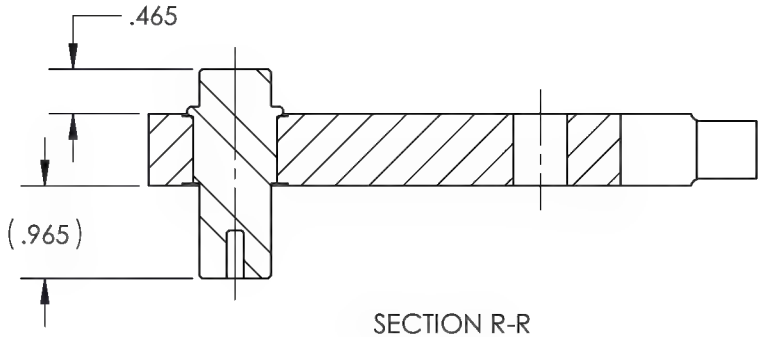
DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

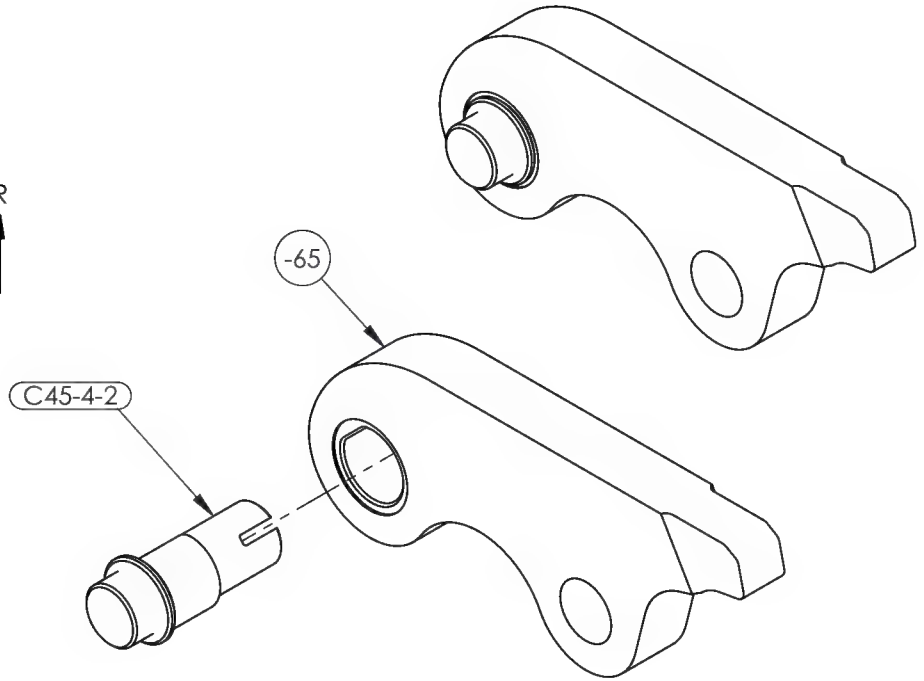
DWG NO. VCT-3-61		REV 2
MAT'L	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:5	DATE 12/4/2014	SHEET 36 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





SECTION R-R



NOTE:
NICKEL PLATE .0009 - .0011, BAKE AFTER PLATING.

(-63)

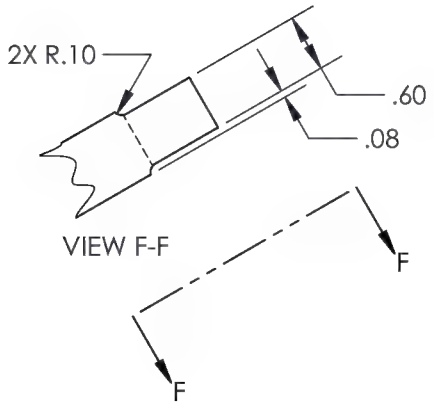
LOAD BEAM ASSY

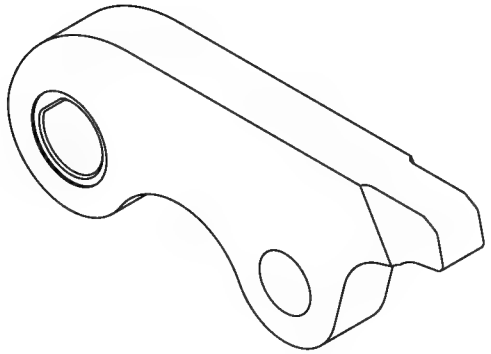
DART AEROSPACE

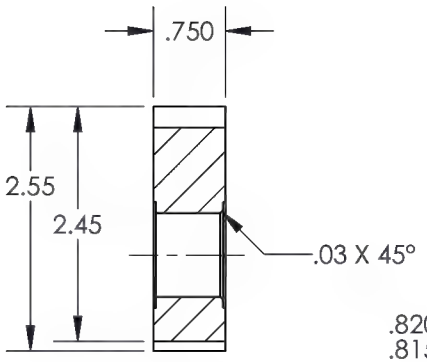
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-63		REV 2
MAT'L	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE SPEC USED ON MODEL	
SCALE 1:2	DATE 12/3/2014	SHEET 37 OF 57

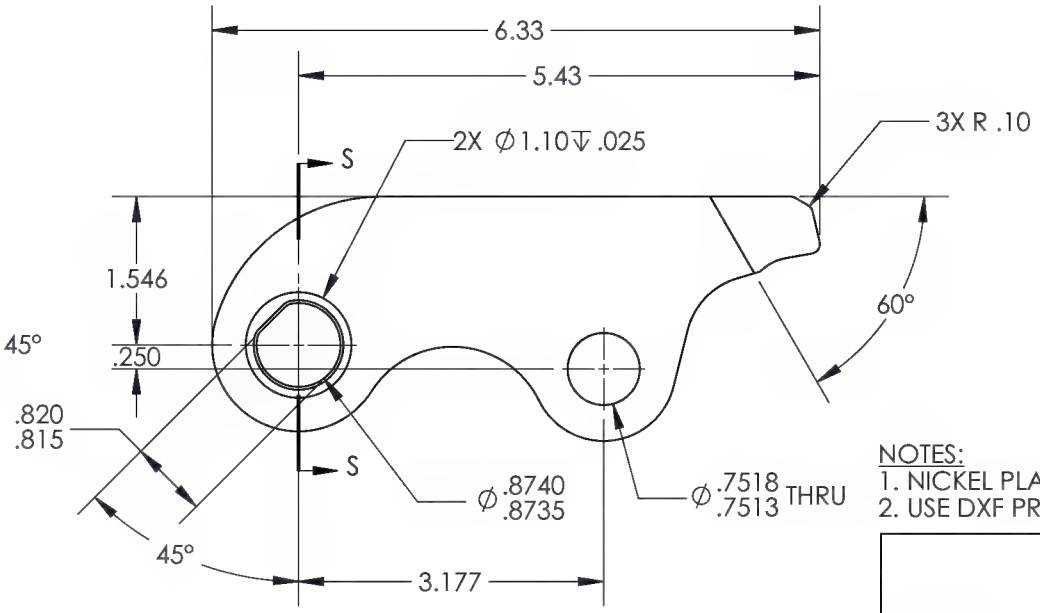
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-65** CH'D DIM WAS Ø1.10↧.03 IS 2X Ø1.10↧.025.	6/22/2015	PMW	JAG







SECTION S-S



NOTES:
1. NICKEL PLATE AFTER ASSEBMLY.
2. USE DXF PROFILE FOR PART CONTOURS.

-65

LOAD BEAM

DART AEROSPACE

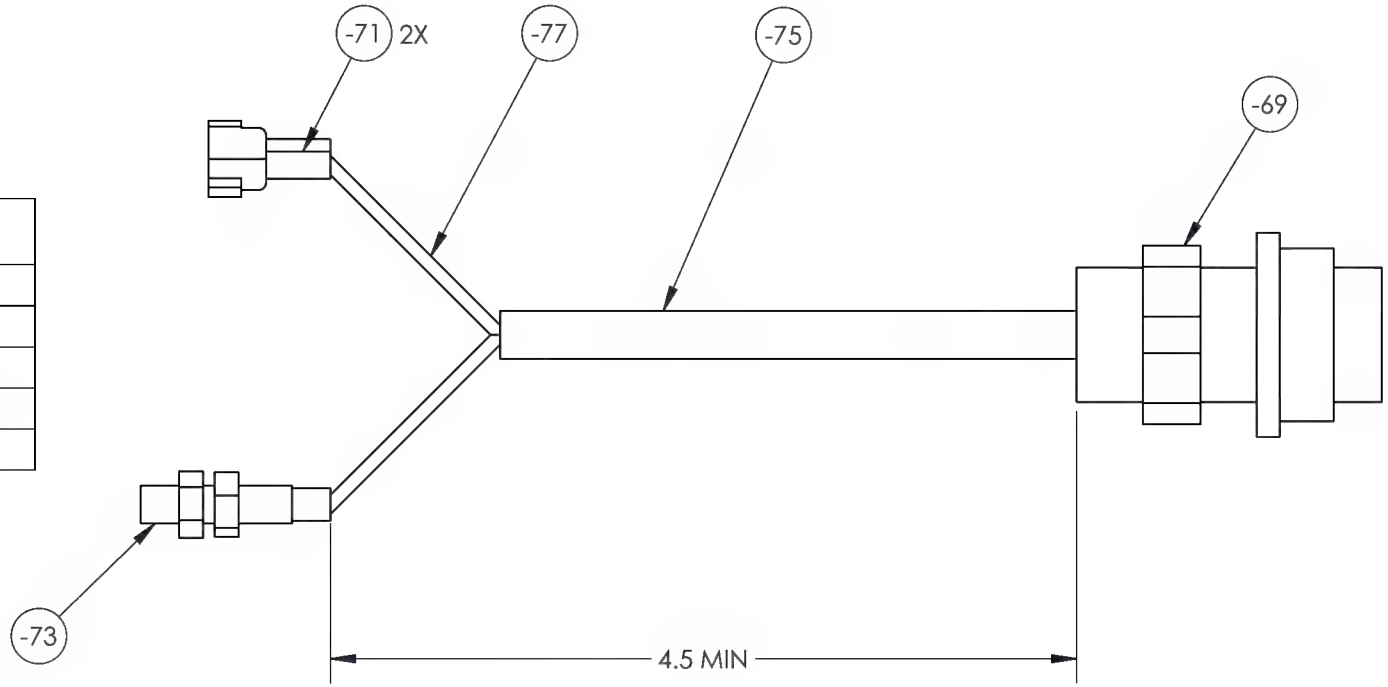
TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.	VCT-3-65	REV 2
MAT'L 4140/4142	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT RC 50-54 FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:2	DATE 12/3/2014	SHEET 38 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED

WIRING TABLE

-69 PIN	
A	-71
B	-71
C	-73 BLUE WIRE
D	-73 BROWN WIRE
E	-73 BLACK WIRE



-67

CABLE HARNESS

DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO.	REV
VCT-3-67	2

MAT'L

DRAWN BY: DUERFELDT

APPROVED J Gilbert

HEAT TREAT

FINISH

SPEC

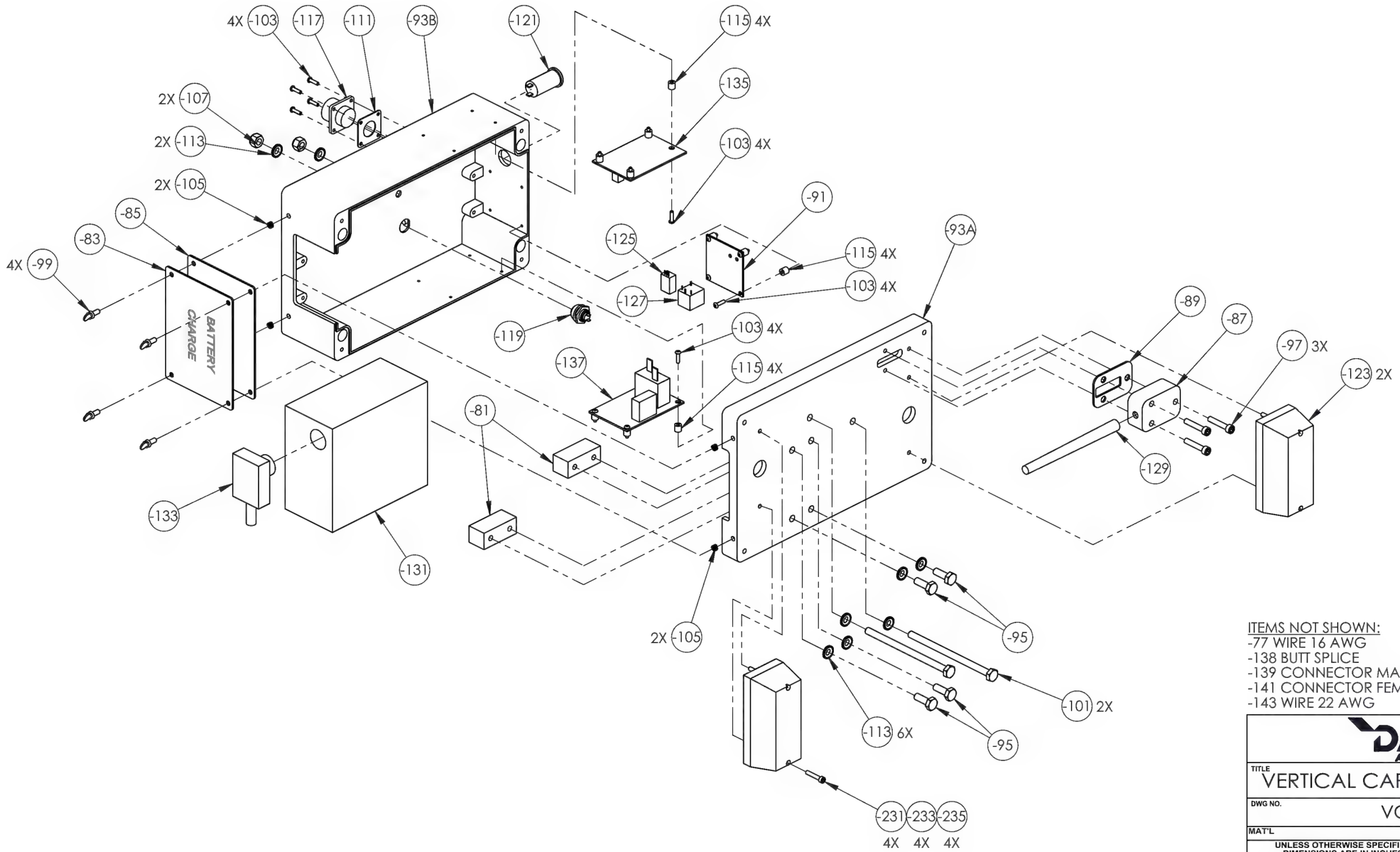
USED ON MODEL

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005
.XX ± .01
.X ± .1
FRACTIONS ± 1/8
ANGLES ±.5°

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE	DATE	SHEET
1:1	12/4/2014	SHEET 39 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-79** ADDED 4X -231, 4X -233, 4X -235.	6/23/2015	PMW	JAG



-79

ELECTRICAL ASSEMBLY

ITEMS NOT SHOWN:
-77 WIRE 16 AWG
-138 BUTT SPLICE
-139 CONNECTOR MALE
-141 CONNECTOR FEMALE
-143 WIRE 22 AWG

DART AEROSPACE

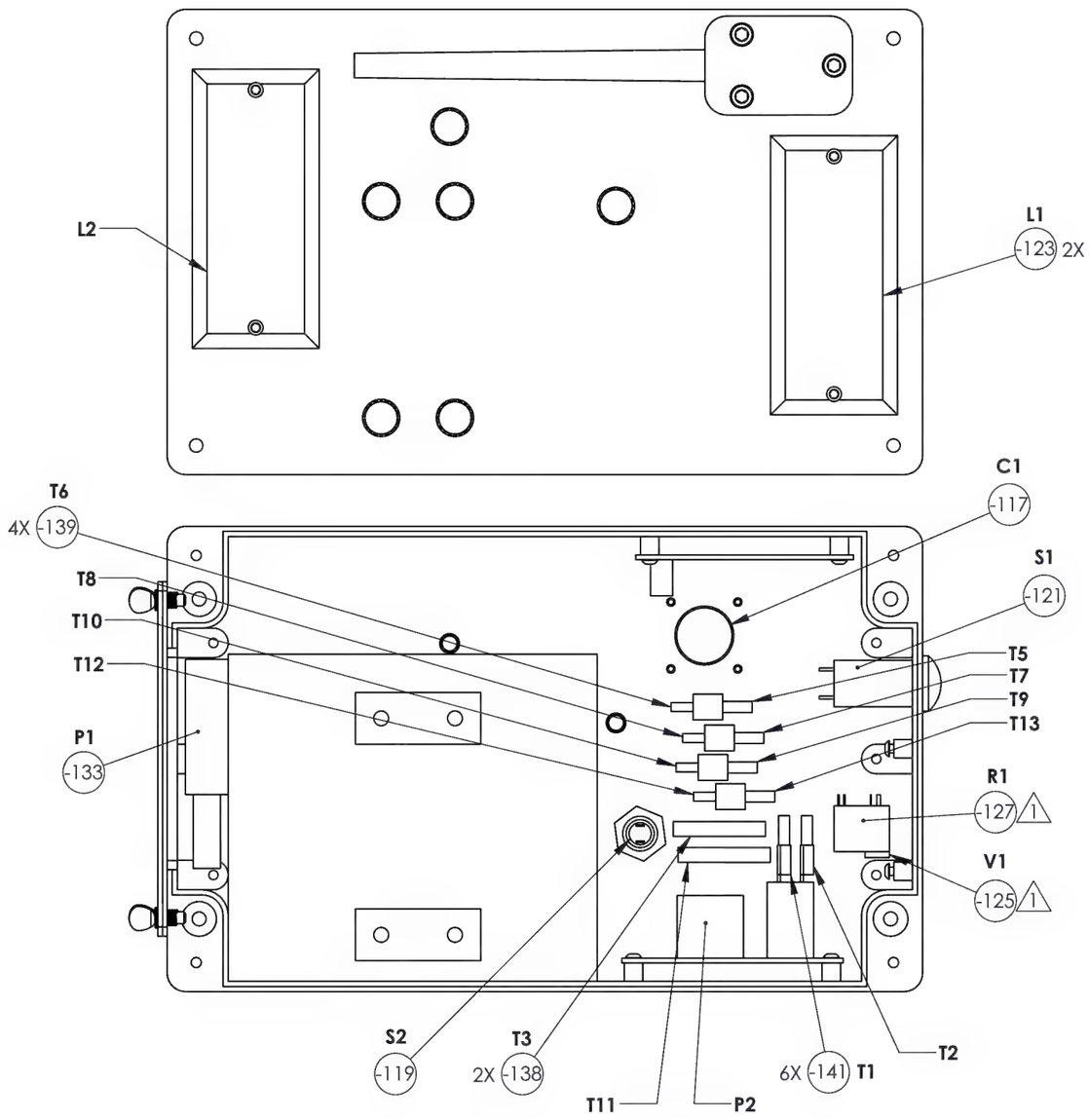
TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.	VCT-3-79	REV 2
MAT'L		DRAWN BY: DUERFELDT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL
SCALE 1:4	DATE 12/4/2014	SHEET 40 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-79E** UPDATED WIRE TABLE AS BUILT. CH'D T3-T4 QD TO T3 BUTT SPLICE. ADDED T11 BUTT SPLICE. ADDED T12-T13 QD.	6/22/2015	PMW	JAG

WIRE TABLE

WIRE	WIRE TYPE	FROM	TO	LENGTH (IN)
1	PLUG WIRE WHITE	P1	S1-COM	20
2	PLUG WIRE BLACK	P1	T3	18
3	PLUG WIRE BLACK	P2	T1	3
4	16 AWG BLACK	T3	T1	10
5	16 AWG BLACK	T3	T5	3
6	22 AWG BLACK	T3	S1-LED-	10
7	22 AWG BLACK	T3	C1-C	10
8	22 AWG BLACK	T3	R1-5	10
9	16 AWG BLACK	T3	V1-2	10
10	PLUG WIRE RED	P2	T11	8
11	16 AWG RED	T11	C1-A	6
12	16 AWG RED	T11	V1-1	7
13	22 AWG RED	T11	S1-LED+	7
14	16 AWG RED	T11	S1-NO	7
15	16 AWG BLUE	C1-D	R1-1	7
16	16 AWG BLUE	C1-D	V1-3	7
17	16 AWG WHITE	C1-B	T2	8
18	22 AWG PURPLE	C1-E	R1-2	7
19	16 AWG BLUE	T7	R1-3	13
20	22 AWG BLACK	T5	S2-1	13
21	22 AWG YELLOW	T9	S2-2	13
22	LIGHT WIRE BLACK	L1	T6	9
23	LIGHT WIRE BLACK	L2	T6	9
24	LIGHT WIRE RED	L1	T8	9
25	LIGHT WIRE RED	L2	T8	9
26	LIGHT WIRE YELLOW	L1	T10	9
27	LIGHT WIRE YELLOW	L2	T12	4
28	22 AWG YELLOW	T10	T13	9



-79E

ELECTRICAL ASSEMBLY
WIRING DIAGRAM

NOTE:

1. REFER TO THE MANUFACTURER SPECIFICATION SHEET FOR CORRECT PINOUT.

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-79E | REV 2

MAT'L

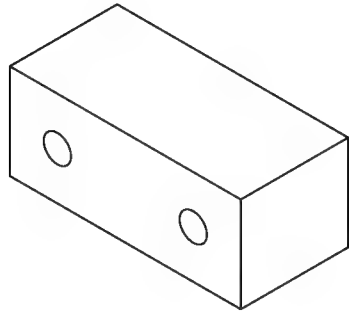
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

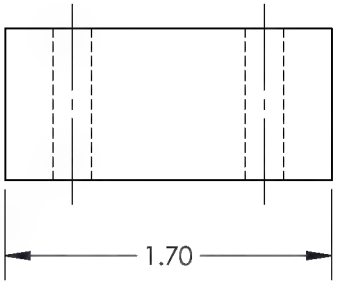
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

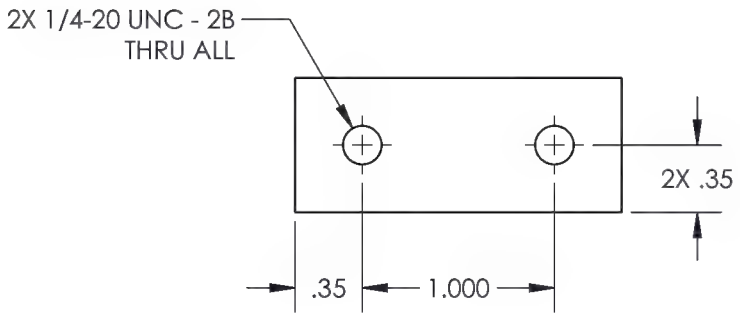
DRAWN BY: DUERFELDT
APPROVED: J Gilbert
HEAT TREAT
FINISH
SPEC
USED ON MODEL

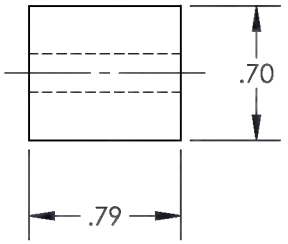
SCALE 1:2 | DATE 12/4/2014 | SHEET 41 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









(-81)

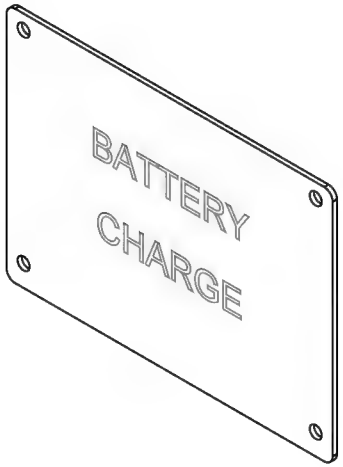
BLOCK, BATTERY

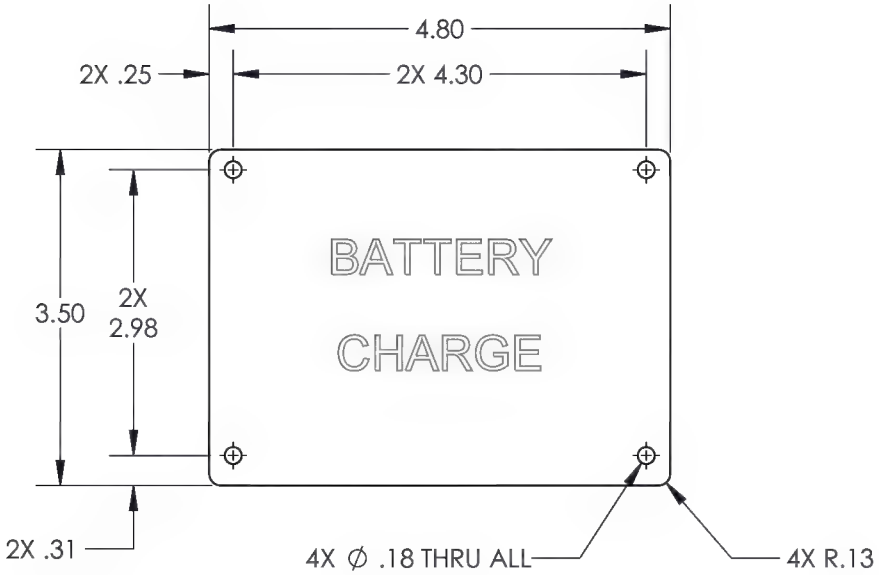
DART AEROSPACE

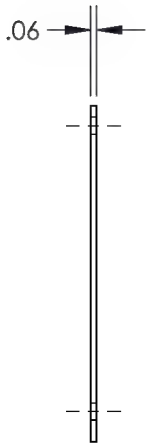
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-81		REV 2
MAT'L 6061	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH CLEAR ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS I USED ON MODEL	
SCALE 1:1	DATE 12/3/2014	SHEET 42 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







NOTE:
USE PDF FOR LASER ETCHING.

-83

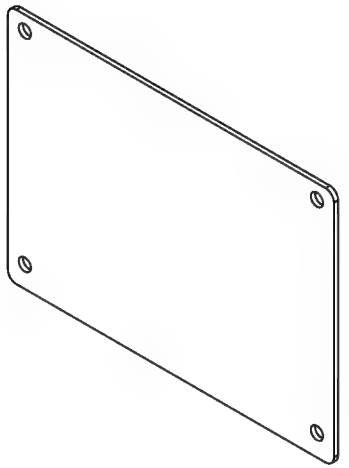
ELECTRICAL PORT PLATE

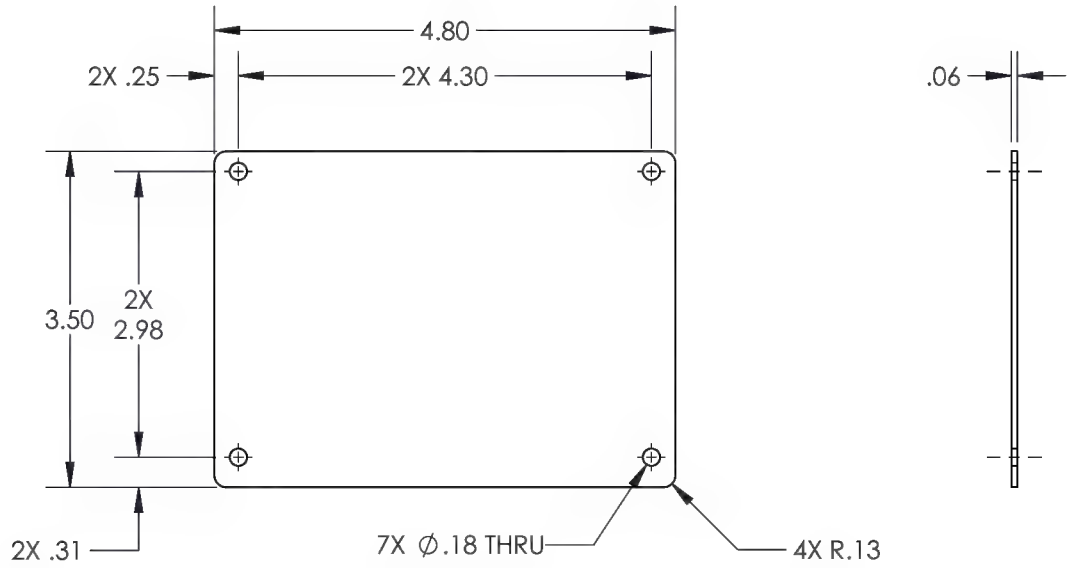
DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-83		REV 2
MAT'L 6061	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH CLEAR ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS I USED ON MODEL	
SCALE 1:2	DATE 12/3/2014	SHEET 43 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





(-85)

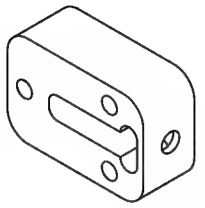
ELECTRICAL PORT GASKET

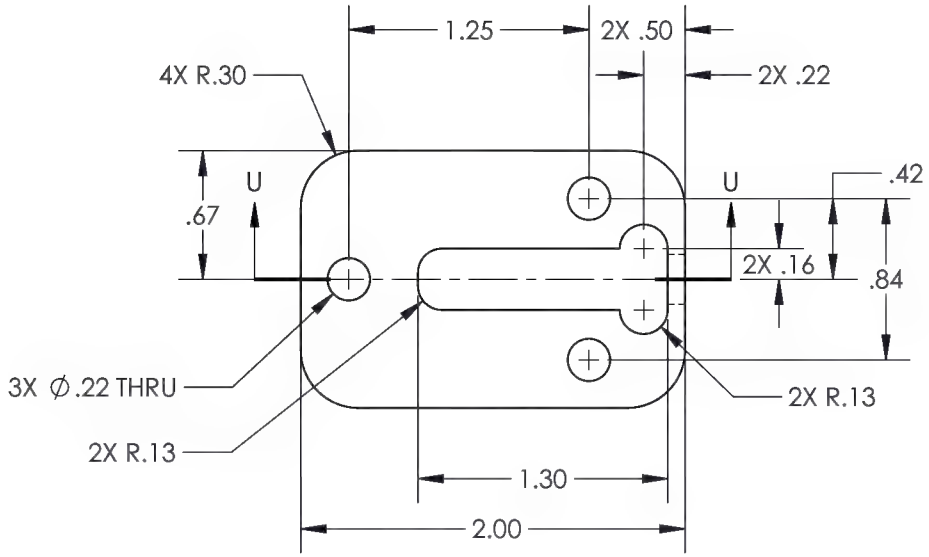
DART AEROSPACE

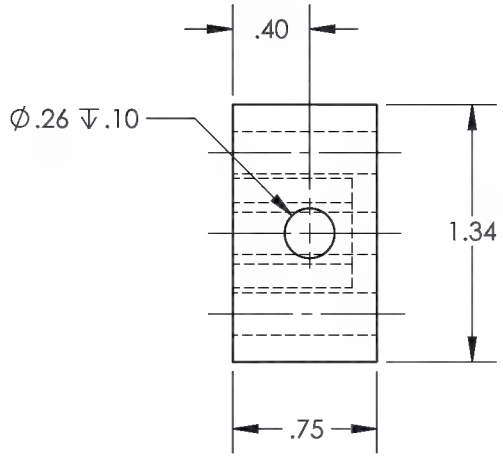
TITLE
VERTICAL CAPTURE TRANSPORT

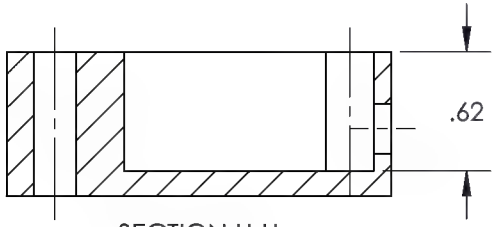
DWG NO. VCT-3-85		REV 2
MAT'L NEOPRENE RUBBER	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:2	DATE 12/3/2014	SHEET 44 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









SECTION U-U

-87

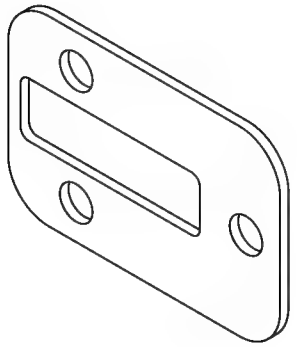
ANTENNA BLOCK

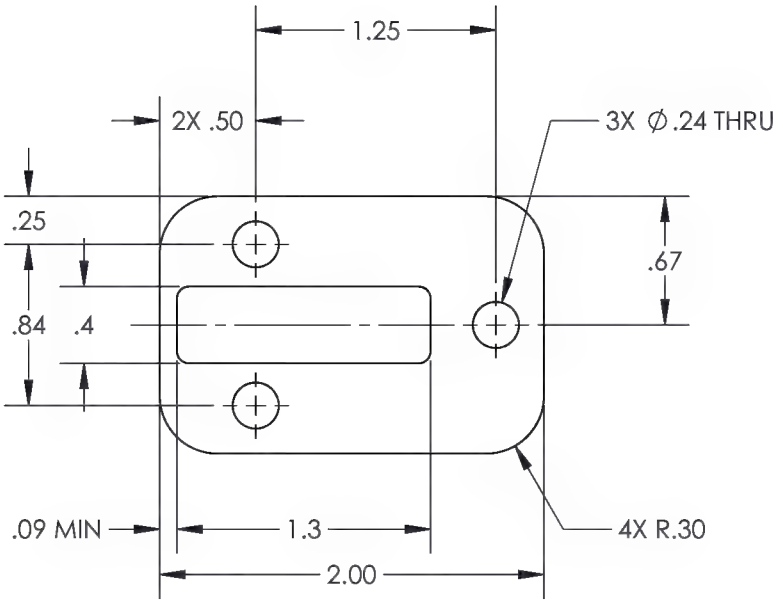
DART AEROSPACE

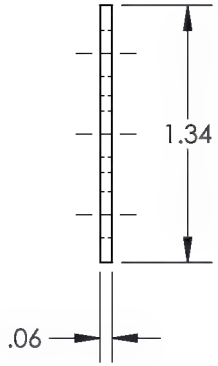
TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO.	VCT-3-87	REV 2
MAT'L 6061	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH CLEAR ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS II USED ON MODEL	
SCALE 1:1	DATE 12/3/2014	SHEET 45 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







(-89)

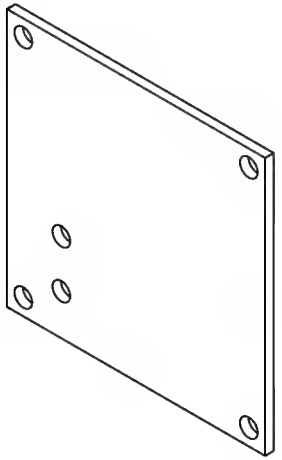
GASKET, ANTENNA BLOCK

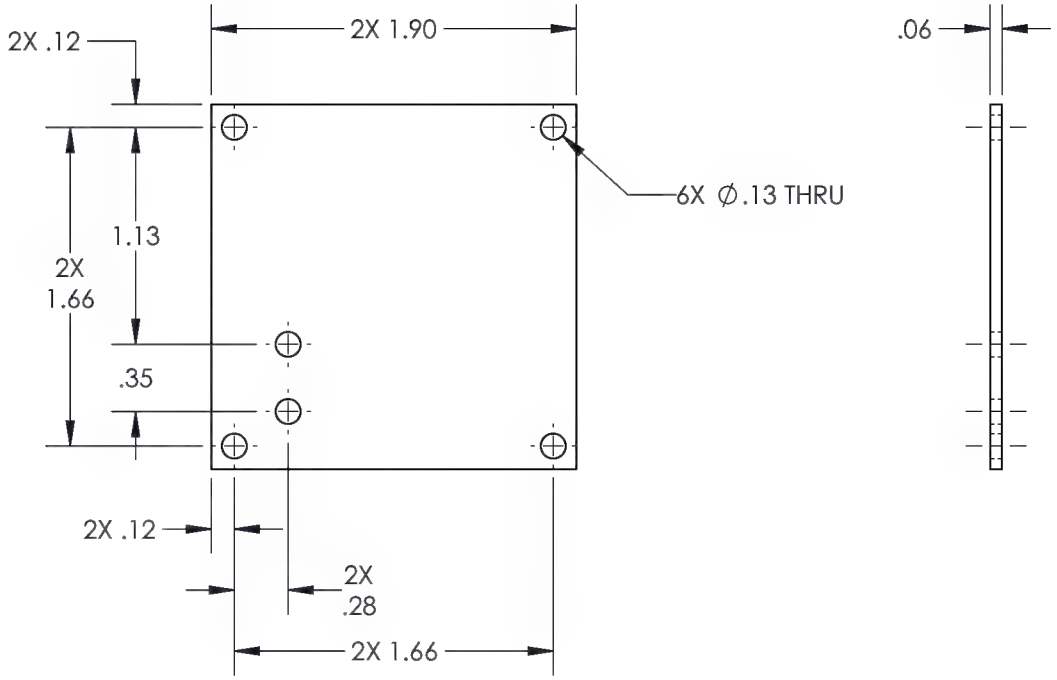
DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-89		REV 2
MAT'L BUNA-N RUBBER	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:1	DATE 12/3/2014	SHEET 46 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED





-91

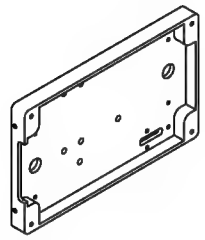
PLATE LIGHT ELECTRONICS

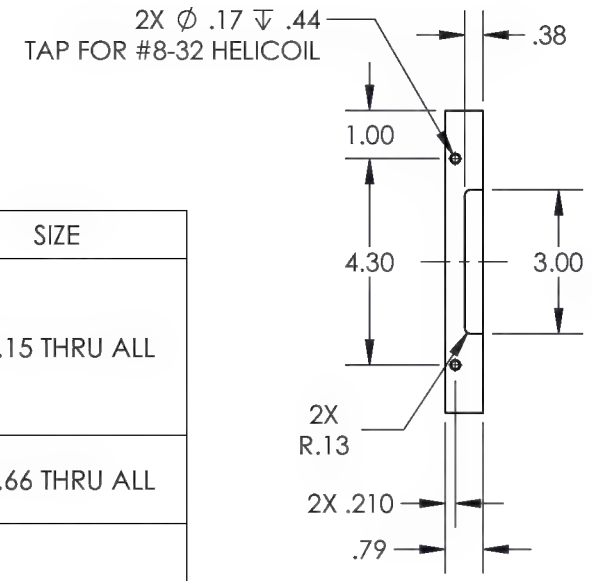
DART AEROSPACE

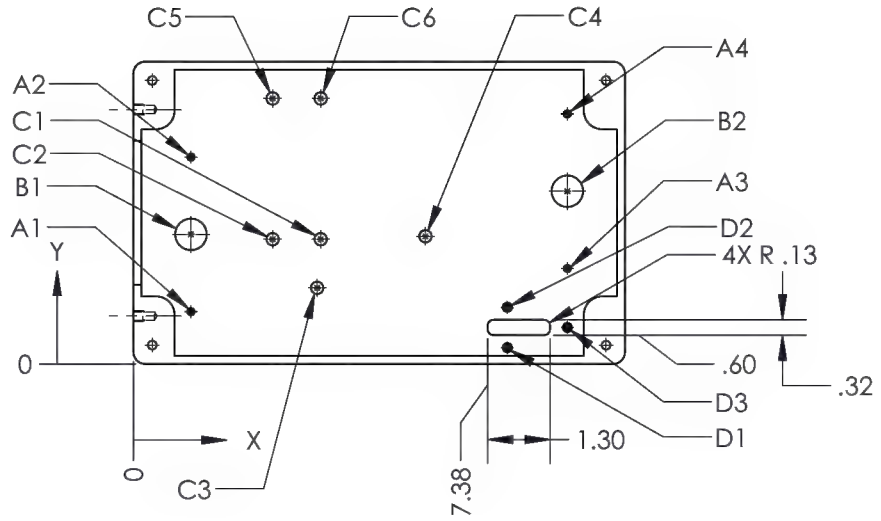
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-91		REV 2
MAT'L 6061	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH CLEAR ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS I USED ON MODEL	
SCALE 1:1	DATE 1/3/2014	SHEET 47 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-93A** CH'D HOLE LOCATIONS, A1 WAS 1.20 IS 1.09, A2 WAS 4.20 IS 4.31, A3 WAS 2.10 IS 1.99, A4 WAS 5.10 IS 5.21, C3 WAS 1.56 IS 1.59, C4 WAS 6.00 IS 6.08. CH'D HOLE DIA WAS Ø.13 IS Ø.15.	6/22/2015	PMW	JAG







TAG	X LOC	Y LOC	SIZE
A1	1.20	1.09	⌀ .15 THRU ALL
A2	1.20	4.31	
A3	9.04	1.99	
A4	9.04	5.21	
B1	1.20	2.70	⌀ .66 THRU ALL
B2	9.04	3.60	
C1	3.90	2.60	⌀ .26 THRU ALL
C2	2.90	2.60	
C3	3.83	1.59	
C4	6.08	2.66	
C5	2.90	5.53	
C6	3.90	5.53	
D1	7.79	.34	10-24 UNC - 2B THRU ALL
D2	7.79	1.18	
D3	9.04	.76	

-93A

LID, ENCLOSURE

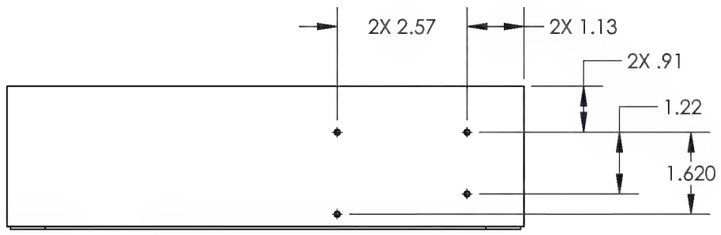
NOTE:
SOME HIDDED LINES OMITTED FOR CLARITY.

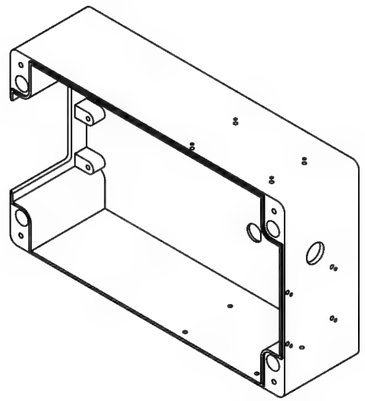
DART AEROSPACE

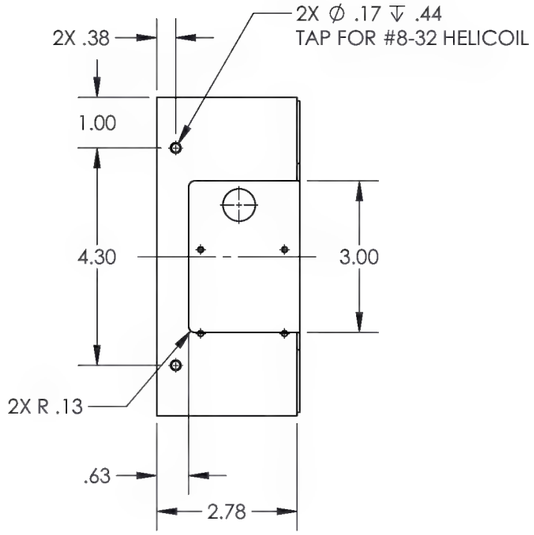
TITLE
VERTICAL CAPTURE TRANSPORT

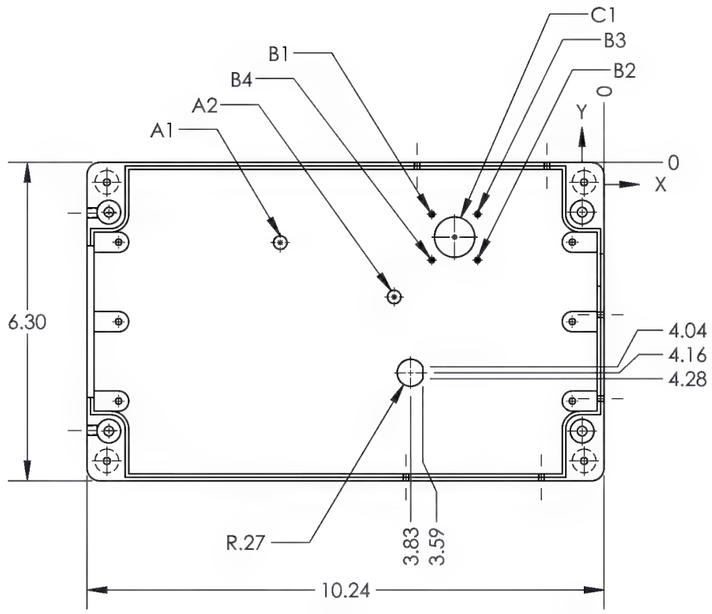
DWG NO. VCT-3-93A		REV 2
MAT'L ALUMINUM	DRAWN BY: CLOUGH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:4	DATE 12/3/2014	SHEET 48 OF 57

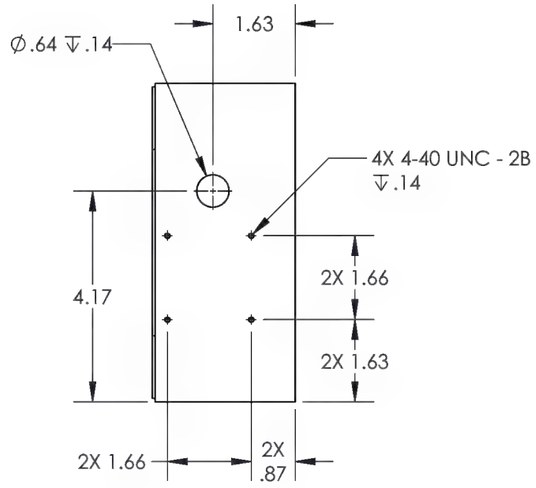
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-93B** CH'D HOLE LOCATIONS A1 WAS 1.56 IS 1.59, A2 WAS 4.23 IS 4.15. ADDED MISSING HOLE THREADS 4X 4-40. CH'D HOLE DIM WAS .75 IS .64. CH'D TOL WAS .87 IS .870.	6/22/2015	PMW	JAG



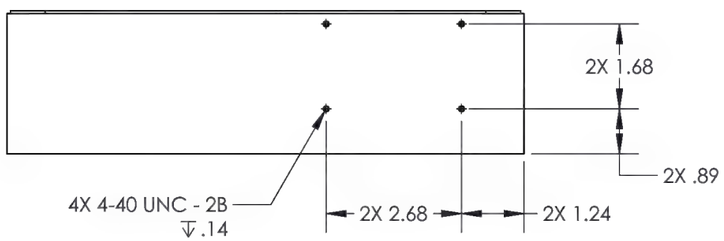








TAG	X LOC	Y LOC	SIZE
A1	-6.41	-1.59	∅ .27 THRU ALL
A2	-4.15	-2.66	
B1	-3.41	-1.03	4-40 UNC - 2B THRU ALL
B2	-2.50	-1.93	
B3	-2.50	-1.03	
B4	-3.41	-1.93	
C1	-2.96	-1.48	∅ .80 THRU ALL



-93B

BOX, ENLOSURE

NOTE:
SOME HIDDEN LINES OMITTED FOR CLARITY.

DART AEROSPACE

TITLE: VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-93B | REV 2

MAT'L ALUMINUM | DRAWN BY: CLOUGH | APPROVED J Gilbert

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .005 FRACTIONS ± 1/8
.XX ± .01 ANGLES ±.5°
.X ± .1

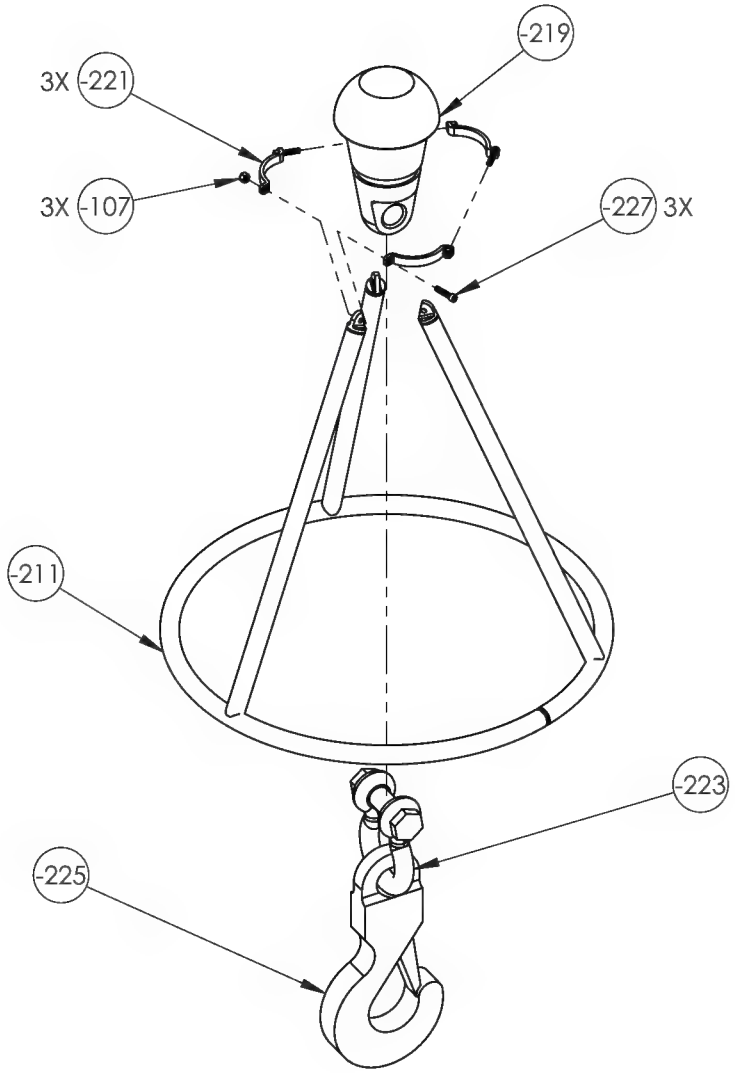
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

HEAT TREAT | FINISH | SPEC | USED ON MODEL

SCALE 1:3 | DATE 12/4/2014 | SHEET 49 OF 57

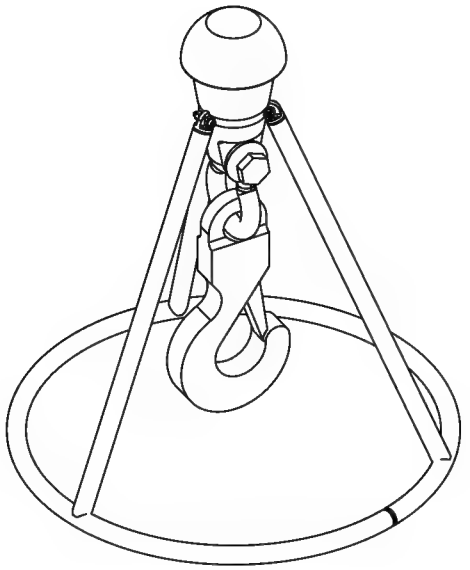
REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED



-209

PUCK ASSEMBLY



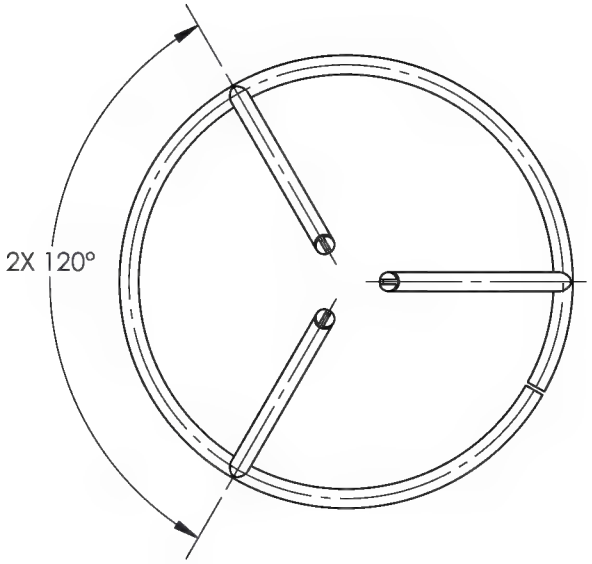
DART AEROSPACE

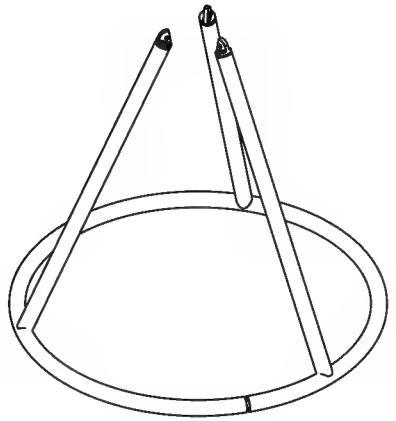
TITLE
VERTICAL CAPTURE TRANSPORT

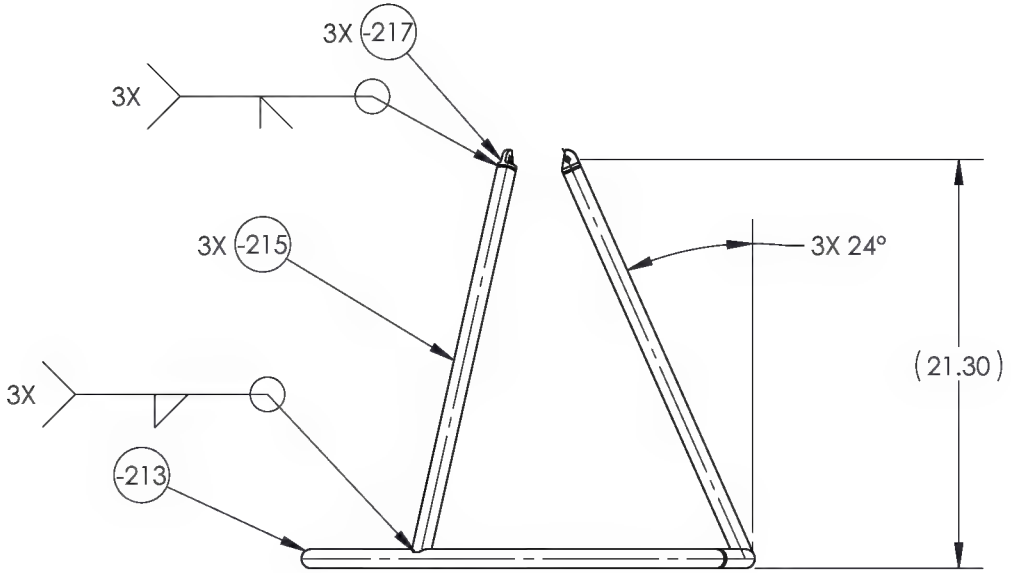
DWG NO. VCT-3-209		REV 2
MAT'L	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SPEC USED ON MODEL	
SCALE 1:10	DATE 12/2/2014	SHEET 50 OF 57

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







-211

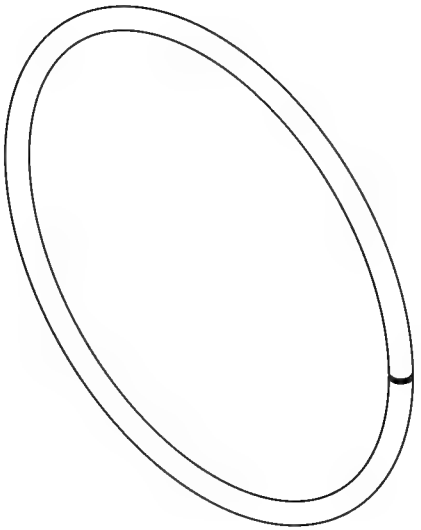
PUCK WELDMENT

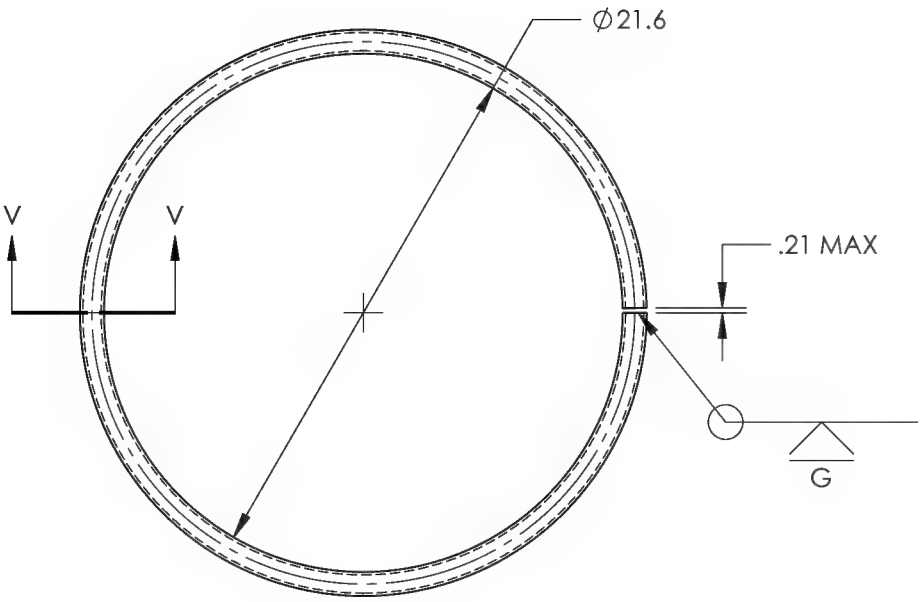
DART AEROSPACE

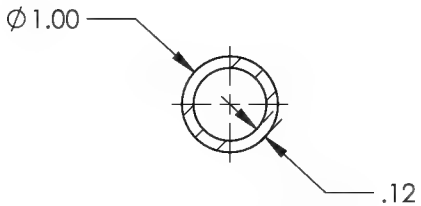
TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO.	VCT-3-211	REV 2
MAT'L		DRAWN BY: DUERFELDT
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING		APPROVED J Gilbert HEAT TREAT FINISH POWDER COAT RED SPEC RAL 3000 USED ON MODEL
SCALE 1:10	DATE 12/2/2014	SHEET 51 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED







SECTION V-V
SCALE 1 : 2

-213

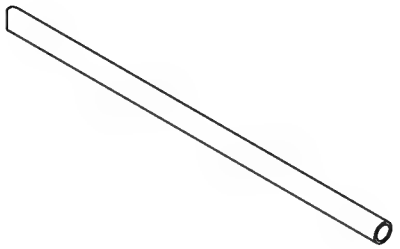
PUCK RING

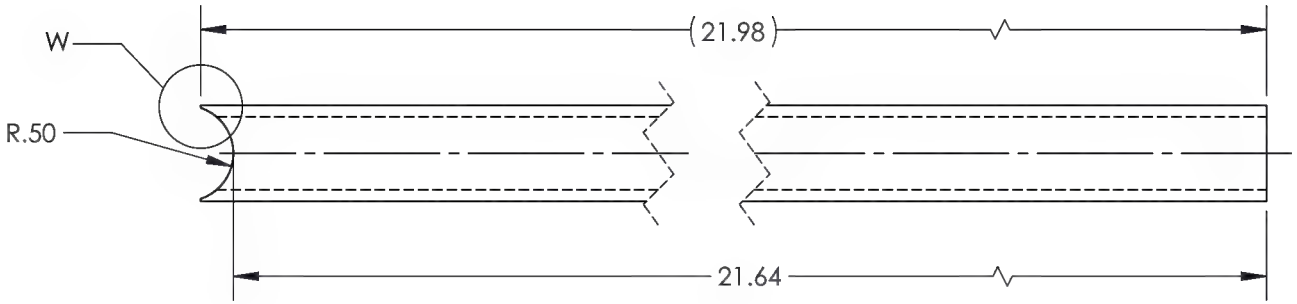
DART AEROSPACE

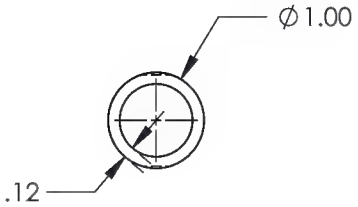
TITLE
VERTICAL CAPTURE TRANSPORT

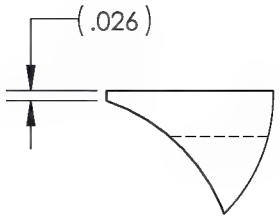
DWG NO. VCT-3-213		REV 2
MAT'L C.D.S. 1018	DRAWN BY: SMITH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -211 SPEC USED ON MODEL	
SCALE 1:8	DATE 10/29/2013	SHEET 52 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









DETAIL W
SCALE 2 : 1

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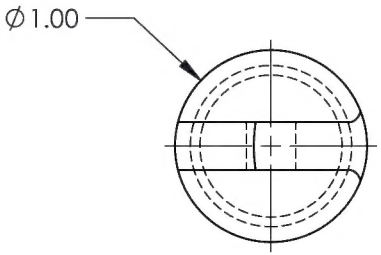
PUCK LEG

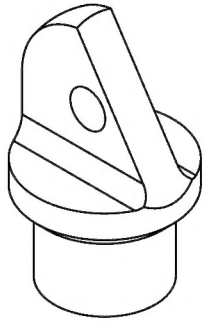
DART AEROSPACE

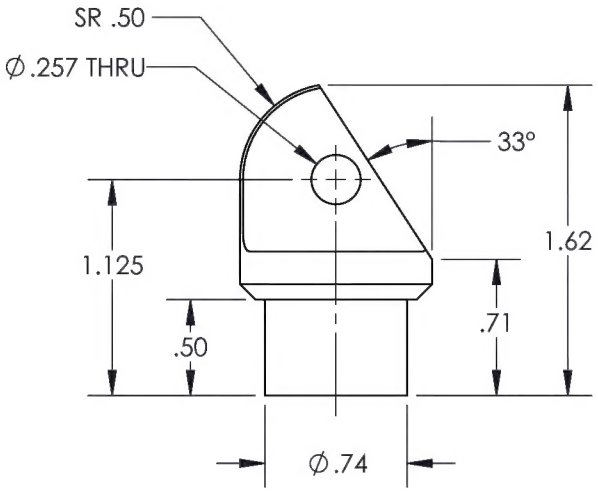
TITLE
VERTICAL CAPTURE TRANSPORT

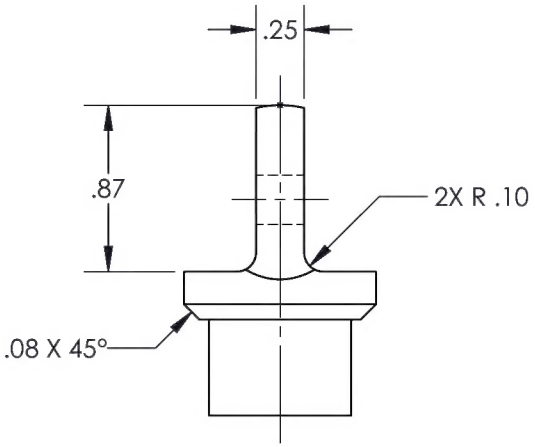
DWG NO. VCT-3-215		REV 2
MAT'L C.D.S. 1018	DRAWN BY: SMITH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -211 SPEC USED ON MODEL	
SCALE 1:2	DATE 10/29/2013	SHEET 53 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED









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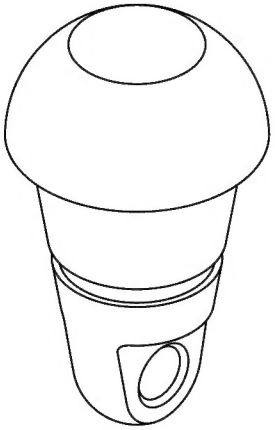
PUCK LEG END

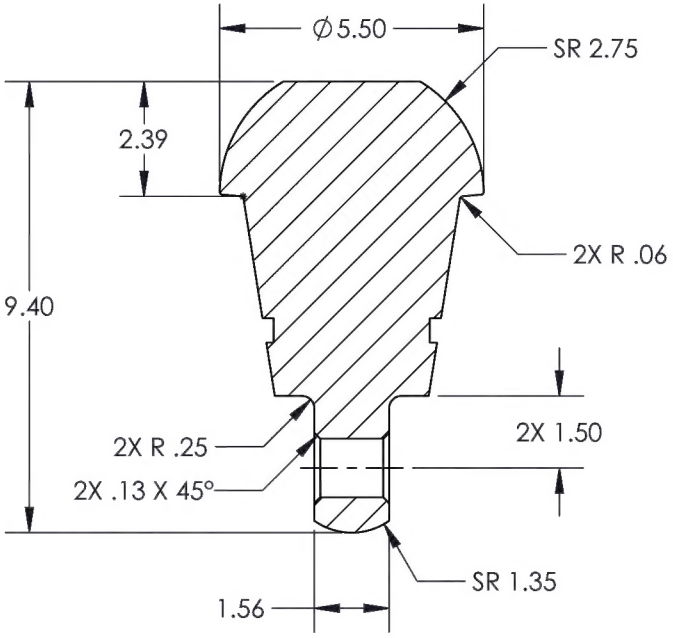
DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

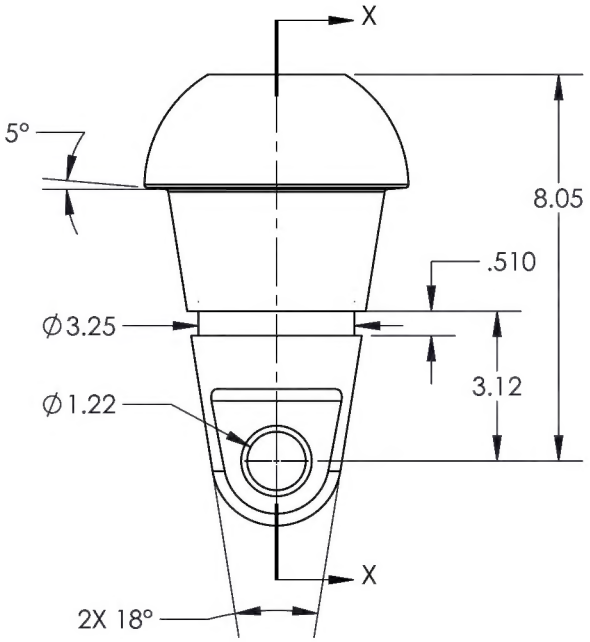
DWG NO. VCT-3-217		REV 2
MAT'L 1018	DRAWN BY: SMITH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE WELDMENT -211 SPEC USED ON MODEL	
SCALE 1:1	DATE 10/29/2013	SHEET 54 OF 57

REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-219** CH'D TOL WAS .51 IS .510.	6/22/2015	PMW	JAG





SECTION X-X



NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-219		REV 2
MAT'L 4140/4142 Q&T	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH SEE NOTE 1 SPEC USED ON MODEL	
SCALE 1:4	DATE 12/2/2014	SHEET 55 OF 57

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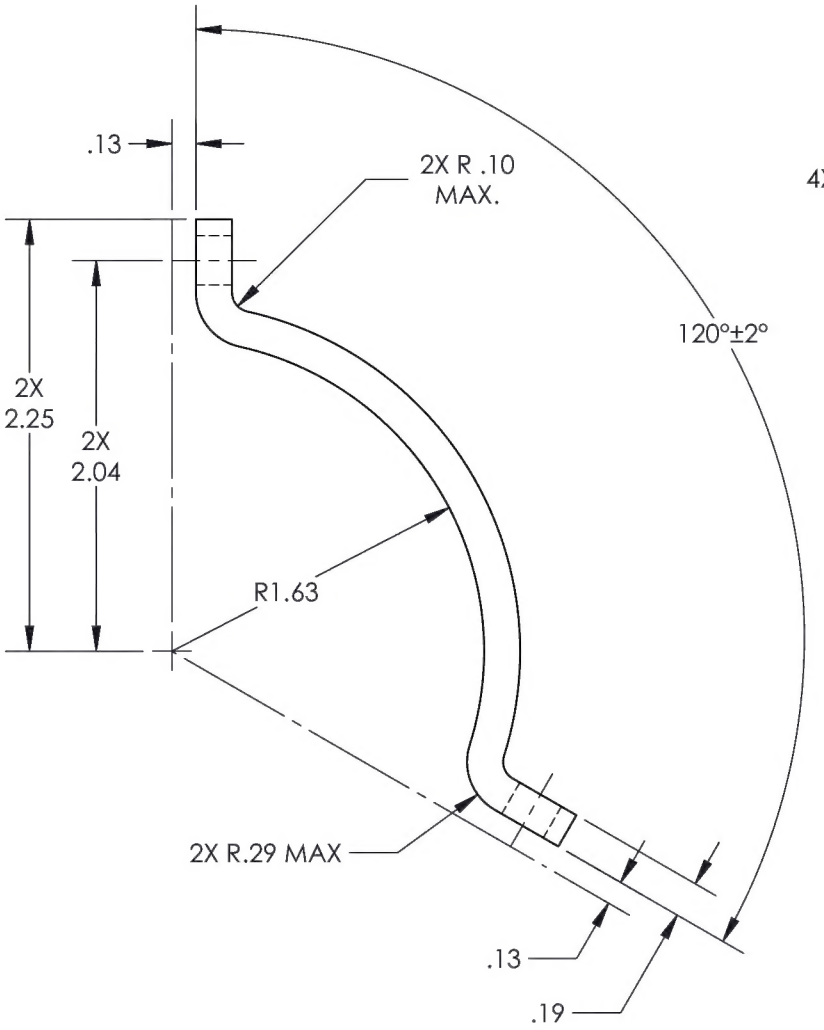
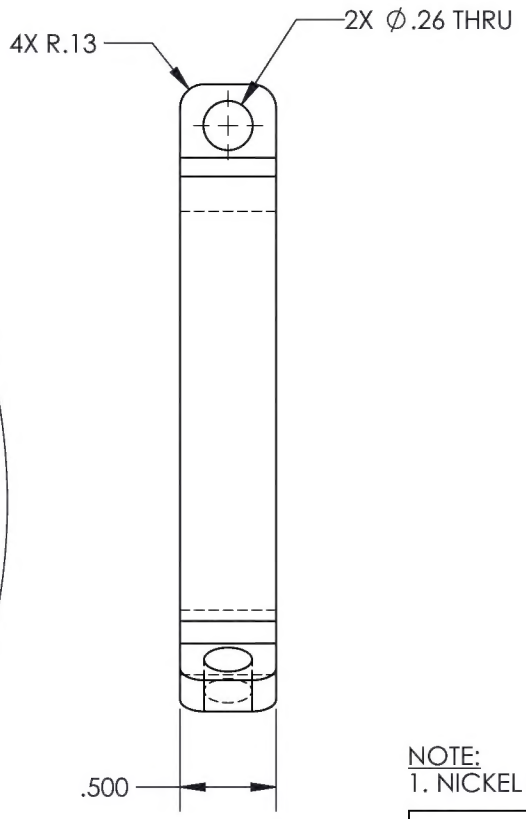
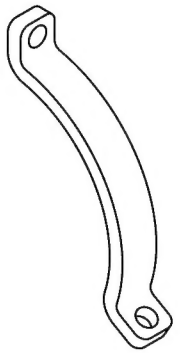
PUCK ANCHOR

REVISIONS

REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-221** CH'D TOL WAS (.50) IS .500.	6/22/2015	PMW	JAG







NOTE:
1. NICKEL PLATE .0004 - .0006, BAKE AFTER PLATING.

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PUCK BRACKET

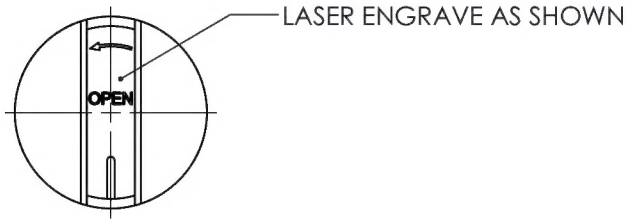
DART AEROSPACE

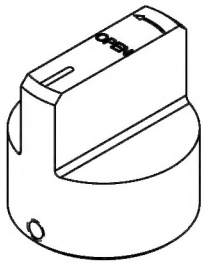
TITLE: VERTICAL CAPTURE TRANSPORT

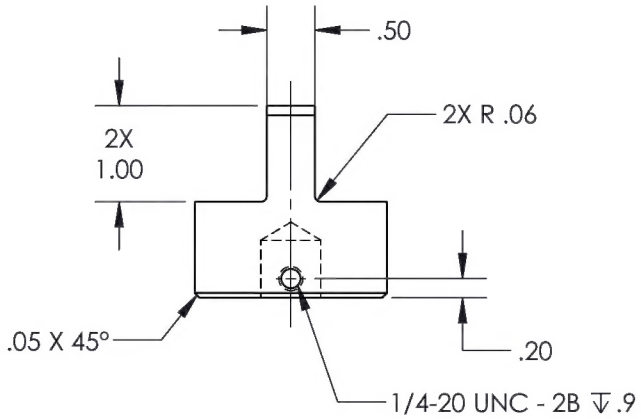
DWG NO. VCT-3-221		REV 2
MAT'L 4140/4142	DRAWN BY: DUERFELDT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1	APPROVED J Gilbert	
	HEAT TREAT: RC 35-39	
	FINISH: SEE NOTE 1	
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC	
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL	
SCALE 1:1	DATE 12/2/2014	SHEET 56 OF 57

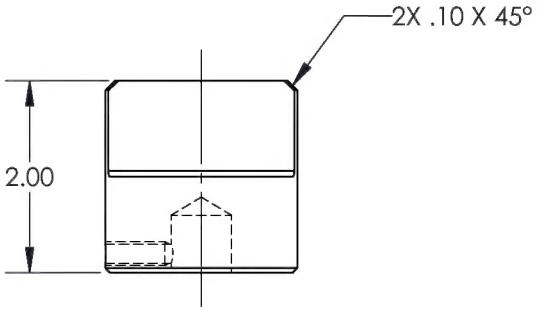
REVISIONS

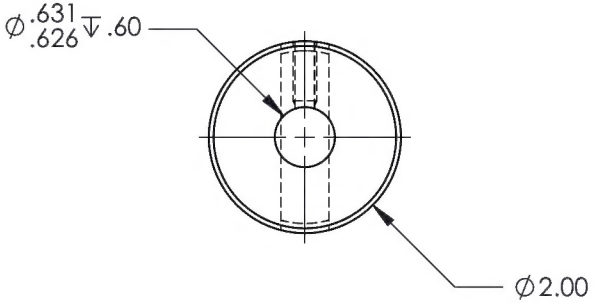
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	15-0149	**-239** ADDED DRAWING SHHET.	6/24/2015	PMW	JAG











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MANUAL RELEASE KNOB

DART AEROSPACE

TITLE
VERTICAL CAPTURE TRANSPORT

DWG NO. VCT-3-239		REV 2
MAT'L 6061	DRAWN BY: WALLRICH	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ±.5° .X ± .1 1. BREAK ALL SHARP EDGES .015 x 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING	APPROVED J Gilbert HEAT TREAT FINISH RED ANODIZE SPEC MIL-A-8625F, TYPE II, CLASS II USED ON MODEL	
SCALE 1:2	DATE 6/24/2015	SHEET 57 OF 57